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ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2353

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CZECHOSLOVAKIA

DEVELOPMENT OF PRODUCTION COOPERATION WITH NONSOCIALIST COUNTRIES VIEWED

Prague ZAHRANICNI OBCHOD in Czech No 9, 1982 pp 2-5

[Article by Juraj Terek and Vratislav Kroc: "Development of Cooperation in Production with Companies of Nonsocialist Countries"]

[Text] In the key directions of economic and social development of the CSSR for the years 1981 through 1985 the 16th CPCZ Congress stipulated for the area of external economic relations: "In the spirit of principles for peaceful co-existence of countries with differing social orders, develop scientific, technical and economic cooperation with nonsocialist countries. Its formulation should be based on mutual advantage and long-term goals derived from the needs of the CSSR and of the socialist community. Create prerequisites for improving the efficiency of exported production. Employ higher forms of cooperation, cooperation in production, science and technology, promote the long-term nature of such relations."

Consequently, over the past several years, leading party and economic organizations in our country developed considerable effort toward activation of cooperation in production between Czechoslovakia economic organizations and companies from capitalist countries. The objective was, on the one hand, to create within the framework of the established system of management and planning of the national economy the necessary planning, economic and other prerequisites for developing effective cooperative relations and, on the other hand, to find a viable solution to problems relevant to the concept for development of a number of industrial sectors on the basis of cooperation in production.

It stands to reason that cooperation in relation to foreign countries can take place and develop in close connection with other forms of economic activities involving foreign countries. However, in comparison with conventional trade relations, there appear to be some significant differences. It involves long-term relations of cooperation in production between direct producers who can, or could, enter the markets as competitors. Their relations become considerably modified on the basis of cooperation. They jointly utilize a combination of their production, research and technological capacities, formulate a joint marketing strategy and jointly use their sales and service organizations and facilities. A very important part of most cases of cooperation is mutual exchange of technical and technological findings and their joint utilization. Last but not least, it also involves exchanges of technology by a factor which facilitates introduction of cooperative production, or increases its productivity.

Czechoslovak authorities view cooperation in production as one of the potential, expedient and effective, but also demanding, means for dealing with existing production, technical and technological problems in close connection with their commercial exploitation. Cooperative relations must be established primarily in those cases when they make it possible to react expediently to changes in domestic needs or conditions on foreign markets. Another objective of cooperative agreements is expedient gaining of proficiency in production under license on the basis of a purchased license.

Current regulation of cooperation relations with companies in capitalist countries is based on provisions of Law No 42/1980 of the Codex, regarding economic relations with abroad, and on CSSR Government Resolution No 284/1980 (Principles for more effective utilization of cooperation in production with nonsocialist countries and with the SERY [Socialist Federative Republic of Yugoslavia]). Depending on the object of cooperative production and manner of long-term distribution of the process of production of the final product, cooperation in production assumes mainly one of the following typical forms:

- a) production in which each of the partners produces parts belonging to the final product, whereby the technology, or production equipment and technical assistance, is provided by one of the partners;
- b) production in which each partner produces parts or the final product using his own technology;
- c) production in which each partner produces components of the final product with the use of technology which is the result of joint research and development;
- d) production of intermediate products, materials and final products on the basis of a long-term division of production programs with the use of technology, production equipment and technical assistance provided by one of the partners.

Even though cooperation in production in the abovementioned concept is one of the new forms of cooperation in external economic relations, it is gradually emerging throughout the entire sphere of material production and its importance is increasing. It spread out most widely in individual sectors of general engineering productions which, as of 1 January 1982, had 24 contracts of the total number of 61 cooperative agreements, representing a 66 percent share in total Czechoslovak cooperative exports; 10 contracts were concluded in sectors of heavy machinery production which represent a 10 percent share in overall cooperative exports, while the electrotechnical industry sectors negotiated 6 agreements with a 5.6 percent share in our total cooperative exports. The remaining 21 contracts, which were concluded in production sectors of the chemical industry, light industry, agriculture, food industry and some other sectors, form a 10.4 percent share of our overall cooperative exports.

Czechoslovak production enterprises cooperate with companies of 14 European non-socialist countries, Canada and India. The highest number of contracts (25) was concluded with FRG companies that figure in our cooperative exports with a 57.8 percentage share, in second place is France with 9.8 percent and third place is held by Italy with 7.8 percent. The remaining 24.6 percent is with

other countries. However, the total cooperative turnover as of 1 January 1982 did not exceed 1 percent of the total CSSR turnover with nonsocialist countries.

Our production enterprises that are the key carriers of cooperation in production must develop a more determined initiative in this direction in cooperation with the corresponding foreign-trade enterprises. At the same time, the trend toward gradual expansion of cooperative relations should be pointed out, indicated also by the fact that 9 additional contracts were signed by 15 June 1982, increasing their total number to 70. This expansion in cooperative relations is occurring in spite of the fact that economic conditions in Western countries are worsening. Contributing to further development of cooperative production agreements will also be the considerable number of currently negotiated and new proposals from individual sectors of material production, a number of which are at a considerably advanced stage of completion.

Realization of the cooperative contracts concluded so far facilitates differentiation between their various characteristic features given by their orientation and the variety of forms of their implementation. In connection with the Czechoslovak concept of cooperative production and with experience gained from its implementation, it involves essentially cooperative production between the respective producers and, in many cases, also sale of licenses, joint research and development, and deliveries of technological equipment for cooperative production. However, the predominant objective of cooperation is joint production of parts, components, assemblies and final products as well as, in followup to this cooperative production, parallel finishing or final assembly by the cooperating partners. Such joint production often develops on the basis of a bilateral contractually backed license and on the principle of equity and long-term duration. The multifaceted nature of the subject of cooperative production can be characterized by the following examples:

Contract Regarding Cooperation in Production of TND 630 Lathe (Concluded in 1981)

The object of cooperation is joint production of a CNC [computerized numerical control] controlled lathe with a turning diameter of 630 mm. The design of its mechanical part is the result of cooperation by both partners, the TX 7 control systems are supplied by the partner company. The Czechoslovak manufacturer produces and supplies the mechanical part of the TND 630 lathe and the partner company abroad supplies control systems, drives and certain other components to introduce complete production, including assembly, in the CSSR. The overall contribution of cooperation is constituted by acceleration of technical development, improved technological level of machinery and acquisition of top CNC systems for final assembly of lathes from our own production.

This cooperative agreement is characterized by elements of joint development, specialization in production of components and assemblies with subsequent production of finished lathes by both partners.

Contract regarding cooperation in production of spherical roller bearings (concluded in 1970). Its object is mutual exchange of corresponding dimensional types of spherical roller bearings. The Czechoslovak party imports 10 dimensional types, 9 of which cannot be produced in the CSSR as yet, and exports 54 dimensional types.

The cooperative relation based on this contract can be classified as specialization of production according to the applicable dimensional type of bearings.

Contract regarding cooperation in production of hydrostatic transfer pumps (concluded in 1969). It is an extension of a licensing contract and its object is introducing production of axial hydrostatic transfer pumps in the CSSR on the basis of agreed-upon specialization of production of individual components. The Czechoslovak partner produces gear-wheel pumps, servovalves and valve membranes to meet his own needs and those of its foreign partner, and imports rotor parts (in kit form), selected sealing elements, springs and other parts.

This involves an example of introducing production under license with effective use of cooperation in production of components.

Contract regarding cooperation in production of rotary harvesting machines (concluded in 1978). Closely tied to a purchased license. The object of the contract is specialized production and delivery of assemblies for subsequent finishing of this machinery by both cooperating partners.

Contract regarding cooperation in production of grinding wheels (concluded in 1970). Its object is processing of abrasive grain for production of grinding instruments and mutual exchange of peripheral sizes of abrasive grains. The Czechoslovak party imports special grinding instruments and grain to meet the demand of our consumers for special purpose abrasives. This involves a case of technological specialization.

Contract regarding cooperation in development of automated feed system for spindleless spinning machines and cooperation in research, development and exchange of fully automated spindleless spinning machines with high rates of revolutions of the BDA type (concluded in 1981). Part of the contract is also the obligation of the foreign partner to import spinning installations from the CSSR. Greatest emphasis in the first stage is placed on scientific and technical cooperation.

This contract is a specific example of cooperation in a closed cycle: research, development, production and utilization.

Contract regarding cooperation in production of mobile heating plants (concluded in 1977). The object of cooperation is joint production of mobile heating plants of various types. The Czechoslovak enterprise supplies BK and OKP boilers, components for heat regenerators, large-capacity containers and, in part, also assembly operations. The partner company supplies selected finishing components (valves, automatic control elements) and complete heating plants.

On the basis of this cooperative agreement, it became possible to be awarded a subcontract for delivery of equipment destined for an important investment unit built in the CSSR by companies from abroad. Negotiations are now underway for potential deliveries to additional territories.

The contract is an example of development of conventional cooperative exchange with finishing by one partner, up to joint delivery of parts of turnkey plants.

Contract regarding cooperation in the manufacture of lines for the production of incandescent lamps (concluded in 1982 simultaneously with a license agreement). The Czechoslovak party supplies parts for production lines (operating posts, mechanisms for individual operations, etc.), the partner company supplies special components for automatic control of lines (blocking system, sensors and detectors, electronic control components, special motors, etc.). This cooperative contract connected with a license makes it possible to produce in the CSSR lines for normal light bulbs, which will increase productivity by two to three times in comparison with its current state.

This involves a case of gradual introduction of production under license agreement.

Contract regarding cooperation in production of seating furniture (concluded in 1980). It consists of three key parts: research and development of selected types of seats, office chairs and upholstered chairs, production and mutual deliveries, cooperation on third markets. The partner company engages in research and development of a system of metal bases and a number of seats and chairs. The Czechoslovak party engages in analogous research and development of a number of executive and office chairs based on wood. It produces and supplies to its partner upholstered shells for executive-type chairs made of compressed polystyrene, upholstered seats, back and side rests on the basis of molded plywoods of a uniform configuration and finishes executive-type chairs, plain chairs and seats. It imports the system of metal bases.

This involves a case of cooperation in research and development connected with cooperative exchange of components.

Contract regarding cooperation in production of antibiotic preparations (concluded in 1979). The foreign company made available, free of charge, its production equipment and prescriptions, and supplies selected preparations, also guaranteeing free service and delivery of spare parts. The Czechoslovak party provided, in keeping with the contract, production shops including auxiliary equipment and made available production and technical personnel. It works for the most part with domestic supplies and delivers to the partner company the finished product.

This involves a case of introducing production in the CSSR with the use of loaned production equipment and with cooperative importation of selected raw materials compensated for by deliveries of the final product.

Contract regarding cooperation in production of heat-radiating stoves using scrap lumber (concluded in 1982). The object of cooperation is a unique product which effectively consumes scrap material. The partner company turned over technical documentation with the proviso that the Czechoslovak enterprise gradually implement production of these stoves. Cooperative importation of certain components and raw materials will keep decreasing. The entire cooperative relation is based on providing an active foreign-exchange balance. Imports amount to approximately 30 percent of exports.

This involves a case of introducing production under license with a decreasing share of cooperative importation of components.

Contract regarding cooperation in raising utility and breeding stock of horned cattle and hogs (concluded in 1982). The cooperation aims at deliveries of utility calves-bullocks and purchase of breeding stock for raising horned cattle and boars for breeding. It also involves sharing of findings, study materials and reports, documentation from the area of breeding and reproduction of horned cattle and hogs, as well as use of biotechnical methods in control of reproduction. This is followed up by examinations of breeding stock animals and their testing. As part of this cooperation, the Czechoslovak party also purchases laboratory instrumentation and equipment for modernization and improvement of breeding.

This involves a case of division of labor in animal reproduction with emphasis on cooperation in breeding.

It is understandable that as there are various types of cooperation in various production sectors, there are also various types of corresponding contractual documentation, i.e., texts of contracts regarding cooperation in production. Yet it is possible to typify certain provisions that are typical of most contracts.

The introductory part of a contract lists the contractual partners to the cooperative contract (on the Czechoslovak part it is a VHJ [economic production unit] or an enterprise and the corresponding OZO [foreign-trade organization]). The preamble of the contract then states the overall intent of cooperation and the basic relations between individual contractual partners. The next part states the object of the contract (specification of the cooperative product or series, to include basic specifications of production and deliveries by both partners to the contract, a detailed breakdown of such deliveries to include technical specifications that usually take the form of an appendix to the contract; in addition to deliveries of components it can also stipulate the machinery and equipment required for cooperative production which are to be supplied as part of the cooperative relation). Further, there usually follows a clause regarding technical cooperation (exchange of technical documentation, obligation to protect its secrecy, type of technical assistance, changes in technical documentation, patents and industrial rights). Provisions regarding delivery of cooperative products specify, e.g., the manner of and procedure in closing individual contracts, deadlines in which notification and specification must be made of mutual deliveries and conditions for cooperation in exports to third markets. Further provisions of the contract relate to prices and conditions for payment (an annex usually states the prices for the first year of deliveries and this part often contains provisions that prices will be agreed upon in individual contracts and what they include, it also states the procedure or reasons for adjusting the price of cooperative deliveries, the currency, method of payment and the documentation it is to be based on, banks keeping the accounts of the enterprises and companies involved). Provisions regarding delivery conditions, technical control and acceptance of products stipulate the point where deliveries are to take place, type of packaging and preservation, and the manner of acceptance of deliveries. The contract further contains provision regarding guarantees and filing of complaints (how the guarantee is to be rendered, who pays and how the costs involved, manner of elimination of defects, procedures for filing of complaints). Individual provisions are made

for sanctions, vis major, court of arbitration and the law governing the contract. Also stated is the term for which the contract is valid and the manner of its extension or termination. Concluding provisions stipulate the procedures for changing or amending the contract, legal succession, the language of the contract and an outline of appendices.

Every type of cooperation represents in its own way a considerable impact on the existing organization of production in a production enterprise. There occurs formation of entirely different relations. Binding obligations are incurred in regard to delivery of the cooperative products in prescribed terms, quality and workmanship. This establishes a direct production dependence for the subjects of cooperation in countries with differing social systems.

Past experience shows that there is a certain amount of correlation between the quality that went into preparation of a cooperative contract and its later successful execution. At the same time, fulfillment of obligations progresses more easily between enterprises and companies which have maintained mutual trade relations for an extended period of time rather than between brand new and formerly unknown partners.

In carrying out a cooperative contract, the Czechoslovak partners can be faced with a situation where they will fail to manage to handle cooperative production in the terms of quality stipulated by the contract, or there occur discrepancies in domestic supply-and-demand relations which will have detrimental effects on the Czechoslovak cooperative partner, or an incorrect estimate is made of the demand of the domestic market for the cooperative product.

On the part of foreign partners cannot be excluded the possibility for occurrence of a complicated situation due to marketing difficulties (particularly in the case of smaller companies) and the resultant inability to meet the accepted contractual purchase obligations, or there may appear an attempt to modify the long-term contractual obligations and, if the company ceases to exist or is merged with another company, there is not always a guarantee of willingness to continue the existing contractual relations.

The reason we mention these possibilities is in every case of establishing cooperative relations to have our side give consideration to, and to the appropriate extent reflect in the text of the cooperative contract, precise delineation of mutual obligations. This will put the cooperation on a realistic and solid footing from the very start.

The current state of development of cooperation in production between Czechoslovak organizations and companies from nonsocialist countries as well as the gained experience and findings make it possible to formulate some more general conclusions:

Cooperation in production is gradually emerging and expanding in spite of the worsening economic conditions in nonsocialist countries. It is becoming an effective tool for diversification and of overall economic relations and contributes also to the development of foreign trade. As one of the forms of cooperation manifested in external relations with capitalist countries, it

cannot effectively cope with fluctuations that occur or can occur in foreign trade with these countries.

Cooperation in production is an integral part of the production process itself and can be instrumental in dealing with problems in production between the cooperating enterprises and companies that can apply to lacking or inadequately used production capacity, acceleration of innovative processes, improving the technical level of products and, thus, their marketability, providing for importation of equipment needed to complete production facilities by utilizing foreign-exchange resources generated through cooperative exports and, last but not least, meeting overall exports to capitalist countries.

Every type of cooperation in production essentially represents a certain type of division of labor between the cooperating partners. These partners pursue the same objective--increasing the productivity of labor, reducing costs per unit of production and improving the effectiveness of the economic renewal process.

An important prerequisite for developing cooperation in production with companies from capitalist countries is a high measure of mutual trust, thorough preparation and unambiguous meaning of all provisions of cooperative contracts, as well as systematic meeting of obligations in the prescribed terms, quantity and quality.

It turns out that the requirement for an equal technical level between the cooperating partners need not be a limiting factor to negotiation of cooperative relations.

Research and development plays an important role in development of cooperation. Granting of licenses, providing of know-how, scientific and technological findings, if accompanied by an agreement regarding cooperation in production, serves to accelerate development of cooperation.

A certain role in seeking out partners and negotiating cooperation is also played by the size of the companies. It is a fact that interest in cooperation with Czechoslovak producers is expressed for the most part rather by smaller and medium companies from capitalist countries. However, company size is not obstacle to development of cooperation and our enterprises conclude contracts with companies of varying sizes, provided they show evidence of pursuing technical progress and offer an assurance of long-term stability in production and mutual deliveries.

The risks attendant to cooperative contracts, such as are, e.g., lagging behind in the technical level of products in connection with long-term validity of contracts, or an inflation in prices or costs, can be eliminated by suitable provisions in the text of cooperative contracts.

Specific economic motivation for establishing cooperation may vary, but in essence it always involves several variants for dealing with technical production problems. The prevalent motivation in the case of our producers is a need for acquiring production capacities of which there is a shortage without demands on additional investments, or improved utilization of existing capacities and

an endeavor to acquire advanced technology, machinery and equipment, new scientific and technological findings and a license, as well as increasing the technical level of products and some components and materials that are in short supply. The decisive motivation for cooperation by companies in capitalist countries tends to be an effort to penetrate the Czechoslovak market, or expansion and consolidation of their position on the market, also in relation to other CEMA countries, an effort to acquire components and materials that are demanding on materials and energy, a need for improved utilization of existing production capacities, an effort to cash in on the results of technical development in the form of selling licenses and an increased relative dependence on foreign trade.

Experience after expansion of the concept, introducing the possibility for importation of technology, procurement of documentation and updating of financial, economic and planning regulations in 1980, shows that over the past 2 years there has occurred a revival in cooperative activity among Czechoslovak enterprises. On the one hand, increasing numbers of managerial personnel are becoming aware of the advantages and possibilities offered by cooperation in production and attempt to conceptually deal with problems of technological development and, on the other hand, there appears a limitation of means for other noninvestment imports. Both of these tendencies lead to the need for finding an appropriate partner and to cooperate. It can be stated that the regulations currently in force provide sufficient leeway and, with development of systematic efforts, make effective cooperation possible.

The point is to use cooperation in production as one of the tools used as a perfectly normal method for dealing with certain problems, where consideration must be given to whether it would be more effective to organize production by one's own resources, engage in specialization within CEMA countries, or count only on imports or, eventually, trade tie-ins. It has turned out that cooperation can be used to deal with problems relevant both to improving the technological level and to acquisition of additional production capacities without additional need for investments; at the same time, it becomes easier and more expedient to adjust production to the needs of foreign markets and, in doing so, also boost direct exports.

It is imperative to look for additional forms and methods of close cooperation between VHJ, production enterprises and OZO. This cooperation must, therefore, be required as early as during determination of the concept for development of individual production sectors; that is a responsibility of advisory boards of VHJ for cooperation with capitalist countries, in which are represented responsible administrators of the technical and production sectors as well as representatives of business groups of the corresponding OZO.

As far as OZO are concerned, they all have special units which in the area of business policy and integration engage in organizing all OZO activities in the preparatory phase of negotiating and concluding contracts. Some OZO (Strojexport, Martimex, Omnia) have business groups which comprehensively implement goods-oriented cooperation from the viewpoint of exports and imports. Other OZO have departments for developing goods-oriented cooperation. The fact remains that not always is implementation of cases of cooperation accompanied by optimum coordination between export and import business groups. It seems,

therefore, in order to call to mind CSSR Government Resolution No 284/1980 which calls for gradual establishment in OZO of comprehensive units for implementation of cooperative cases on the import/export principle. In addition, Transakta OZO is authorized to offer professional consultation services in establishment of cooperative relations, their negotiation and assessment. In a number of selected cases this organization also can engage in foreign trade activities resulting from the cooperative contract, particularly if the cooperative exchange involves more than two goods-oriented OZO, or the foreign partner is a Czechoslovak affiliation, or if it involves enterprises of certain selected sectors. In every case is promoted the principle that each cooperative contract be implemented by a single OZO, where it would be possible to implement in a very simple manner any changes in the merchandise assortment from the viewpoint of the needs of cooperation. That, of course, does not absolve these OZO of the responsibility to consult on prices with the relevant OZO.

In contemplation of and then in introductory negotiations regarding potential cooperation with foreign partners the Czechoslovak party must proceed most responsibly. It will no longer be possible to open up a number of negotiations which offer only general promises, and then, after many negotiations abroad, cancel further negotiations without any explanation.

The appropriate authorities are again dealing this year with problems of improving regulatory and overall conditions for development of cooperation in production with nonsocialist countries. It was stated that the regulatory framework for cooperation is satisfactory and needs only some partial modifications or amendments in the following areas:

- specify more precisely the concept of cooperation in production in keeping with the provisions of Law No 42/1980 and CSSR Government Resolution No 284/1980;
- delineate the extent of application of the "Uniform Principles for Assessment of Economic Effectiveness of Contracts Regarding International Specialization and Cooperation in Production" to the specific problems relevant to cooperation in production with nonsocialist countries and with the SFRY;
- assessment of the impact of cooperation in production on financial indicators of production enterprises from the viewpoint of the "Set of Measures";
- the problem of using cooperative accounts (introduction of foreign-exchange accounts);
- providing of foreign-exchange resources for official trips abroad required for negotiating cooperation in production;
- stepping up the management and control tasks of ministerial departments in acquisition and implementation of cooperative proposals, to include improved flow of information between production enterprises, VHJ, OZO, and Czechoslovak trade sections abroad;
- update the text of reports regarding the state and orientation of cooperation in production with nonsocialist countries and the SFRY.

These measures are based on long-term practical experience and findings. However, the decisive factor in this direction is the conceptual approach and thorough examination of cooperative goals. Conceptual goals must be a specific reflection of long- and medium-range plans for development at all levels of planning and management of the national economy. Thus, determination of specific proposals for cooperation is an integral part of compilation of the plan for the development of the national economy, individual production sectors, branches and production. It involves organic interlinkage of concepts for overall development of sectors and productions with proposals for cooperation. The specific carriers of cooperative relations are production enterprises, VHJ and OZO and their initiative in formulation of cooperative goals and their implementation is essentially irreplaceable.

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CZECHOSLOVAKIA

CONDITIONS FOR DEVELOPING WORK-TEAM FORMS DISCUSSED

Prague PRACE A MZDA in Slovak No 10, 1982 pp 33-37

[Article by Andrej Koftuk, Czechoslovak Research Institute for Labor and Social Affairs, Bratislava: "Prerequisites for Development of Work-Team Forms of Labor Organization in an Industrial Enterprise"; passages in slantlines printed in boldface]

[Text] Our daily press very often writes about the essence of work-team forms of organizations of labor and remuneration (further only work-team forms). On the other hand, opinions and explanations of individual terms are not uniform. For example, work-team forms are often equated with khozraschet [cost-accounting system]. However, it is clear at first sight that a work-team is a form of organization, while khozraschet is a form of management. Almost nothing is said about the prerequisites that must be created in an enterprise to spare the work-team forms from the fate of some short-lived drives about the conditions under which work-team forms flourish and constitute an economic and social contribution.

It was not by mere chance that at the 17th Congress of Soviet trade unionists in March of the current year Comrade Brezhnev devoted a substantial part of his address to work-team forms and the tasks of those who are to create the prerequisites for development of work-team forms in an enterprise. They represent a key to the problem of development of work-team forms at the present, when teams in production and plant management show interest in their expansion, but development of work teams in plants stagnates or collapse due to unfavorable conditions. Comrade Brezhnev in his address unequivocally and precisely put his finger on the key reason of this phenomenon: "When work teams are formed, the best workers express their desire and willingness to accept responsibility for expedient and quality meeting of work tasks to their full extent and comprehensively. However, it is to be regretted that not all managerial personnel develop an effort to create for a work team the requisite working conditions and accept their part of responsibility. There is also evidence of shortcomings in organization and conservatism in thought. All that undermines the very essence of the methods of teamwork forms, their Khozraschet basis." (Citation from address by L. I. Brezhnev, Bratislava, PRAVDA, 17 March 1982)

We want to point out that these conditions and prerequisites are and how they must be shaped to make development of work teams in an enterprise economically and socially effective.

In creasing these prerequisites, consideration must be given to the basic principle of making work-team forms effective--the principle of comprehensiveness. Experience shows that the more comprehensively a specific brigade and enterprise makes use of findings applying to the work-team form of organization* the higher is its effectiveness. The set of prerequisites for development of work-team forms in an enterprise worked out below confirm the inevitability of applying this principle.

Political and Economic Prerequisites

Development of work-team forms viewed and influenced from any level of management calls for concentrated, systematic and coordinated efforts. However, it calls primarily for a consensus among party, economic and trade union leadership, the importance of which becomes best manifested under the conditions of a specific enterprise. Such a consensus and the political level of members of the mentioned organizational components is a specific manifestation of favorable political conditions in the enterprise.

Whether the economic conditions in an enterprise are suitable or not requies an assessment from the viewpoint of the intended purpose of work-team forms. In no case is it a form that one can introduce anywhere and start reaping its benefits. Success of work-team forms (i.e., socioeconomic effectiveness) depends primarily on the quality of preparatory efforts, because it involves a certain amount of interferences with the routines engrained in the enterprise. Conditions are definitely better in an enterprise that is stabilized and wants to use work-team forms to enhance its continued economic and social development.

* When a work team makes use of some viable elements or organization of labor (e.g., rotation of personnel) and collective remuneration, that still does not justify a claim to having a work team, even though effectiveness of labor may have increased. However, the latter could be even higher if they applied additional elements, if tasks were planned and assigned to a work team as a whole in keeping with the principles for work-team forms, if the team worked according to khraschet principles within the system of the plant's khraschet relations, if plant units were to provide quality service to work teams, etc. This requirement for comprehensiveness that has been verified in practical applications is stressed in a number of articles in Soviet technical periodicals.

Technological and Organizational Prerequisites

Technological development and the requirements for organization of labor that it determines are objective factors. Failure to adjust the forms of organization of labor to the technological level can lead to problems such as inadequate use of manpower in the course of a shift (idle time due to shortage of work, excesses in the so-called machine time), bottlenecks in the technological cycle (again idle time of workers), absenteeism, excessive times for preparation and finishing of work on a complicated system, etc.

/These problems are dealt with through work-team type organization of labor, among other things, by

/--intra- and inter-team cooperation (use of interchangeability, multiple qualifications within teams and other viable elements of organization of labor);

/--inclusion of auxiliary and service personnel into work teams, forming so-called expeditor teams based not only on production workers;

/--turning over equipment "under operation" between work teams, or as part of the so-called continuous (multishift) work team, etc./

From what has been said it is clear that technological development creates the prerequisites for changes in organization of labor. In connection with work teams the point is to determine by analysis whether the work-team form is economically feasible for the given level and type of technology, or even possible.

Organizational prerequisites involve two aspects:

a) establishment in the enterprise of a structure that would promote development of work-team forms and help to effectively manage such development or control of work teams in production operations;

b) changes in the organization of workplaces for effective organization (introduction, establishment) of work teams

/From the requirement of comprehensiveness, as well as from the subsequently characterized prerequisites, it follows that introduction of work-team forms has an impact on all units of an enterprise. In plants of the USSR, where work-team forms have been most worked out and developed, is applied the principle of clearly specifying the place and the role of each service unit in the process of introduction and the mechanism of functioning of work-team forms in the plant. Therefore, in Soviet practice, sets of methodical and control documentation are worked out for both the needs of plant units and work teams. These include, e.g.,

/-- methodical recommendations regarding organization of production work teams in accordance with local conditions,

/-- delineation of the legal position of the work team and of its leader in the system of intraplant relations,

--type rules for the manner of establishing and organizing work teams,
--type rules for distribution of earnings depending on the type of work team,
--recommendations for computation of coefficients of work participation, etc./

Materials of this type form a part of projects for development of work-team forms in enterprises. All the rules of the system for introduction of work teams specify the functions of units at various levels of management or social organization. Thus, it follows that introduction of work-team forms is not only a matter of economic management.

For example, the /unit for organization of labor/ (improving the efficiency of labor, comprehensive socialist economy drive, etc) is to

--coordinate the activities of all units in development of work-team forms, provide for their methodical control,
--plan the development of work-team forms during the years of the 5-year plan and in the current period,
--work out the organizational arrangement (e.g., in the form of a flow chart of organization of labor) of the workplace of each specific work team in the plant,
--publish and disseminate helpful experience made in the process,
--keep work-team records and accounting,
--provide work places and work teams with methodical materials,
--work out programs for seminars and courses relevant to work-team form training etc.

The Labor Economy Unit

--is response for organizing remuneration for work in production work teams according to the final results of the work team's efforts,
--plans quotas for increasing the productivity of labor in the current year and in the 5-year plan,
--determines the standards for the numbers and services for auxiliary personnel in formation of expeditor work teams, etc.

The Technological Unit

--determines technologically justified standards for remuneration of work teams according to the achieved results,
--computes the labor-intensivity of tasks assigned to work teams with a view to combining qualifications, expanding zones of servicing, etc.
--helps work teams become proficient in new technological processes, etc.

Analogously, rules specify the duties of other functional services (units) in the process of development of work-team forms in the plant, such as preparation of production, planning, training, cadre and personnel work, etc.

As long as conditions are not created in the plant for units to meet these tasks on behalf of work teams, the development of work-team forms stagnates and collapses. Then it is up to the plant's management to control (and, mainly, motivate) the plant units so as to provide the maximum possible support for the development of work-team forms.

Management and Informational Prerequisites

Introduction of work teams in an enterprise on a larger scale represents a form of interference with its accustomed management structure. This applies mainly to changes at lower level of management. A delineation is made of the rights and obligations of members and the head of the work team and of the course of the work team's activities. A well-functioning intraplant khozraschet is a favorable prerequisite for effective management of work teams.

/Significant changes occur in the internal management of work teams. The specifics of work teams change the routine relations between team and leader as well as the mutual relations between work-team members. The practice up to now ranged between two extremes: formally determined work teams and informal groups. The closer the proximity between the two, the more effective the work team. The work team forms of implementing the principle of voluntary participation in work-team membership and in electing its leader bring those two points considerably closer together. Therefore, the problem of work-team formation (in connection with creation of cadre and personnel prerequisites) must receive particular attention./

A reliably functioning intraplant system of management calls for an equally reliably functioning informational system. Under conditions of the work-team form particularly under work-team khozraschet, there occur changes in the information that the production team needs for carrying out its tasks and the information that it must provide to the intraplant management. This includes, e.g., information from the area of remuneration, operational control of production depending on the type of production, etc.

Cadre and Personnel Prerequisites

The most important factor in this area is preparation and selection of work-team leaders of their posts. In Soviet plants the economic management recommends a worker for the post of work-team leader after thorough deliberation (however, the work team need not accept the management's proposal), or the leadership nominates a work-team leader on the basis of an analysis of informal groups. The first method is simpler and more widely used, the second is more effective. The second method is used, e.g., in the turbine production plant in Kaluga. At any rate, however, one or the other method must be incorporated into the plant's rules.

/Of importance is also training of personnel for development of work-team forms. Each group of the plant's personnel affects this development in its own way. individual categories of personnel must be familiarized with the advantages offered by work-team forms, as well as with the mechanism of work-team functioning and the conditions which this form of organization of labor requires. From this viewpoint we talk of training

/--plant specialists who provide functional services for work teams (involving units under prerequisites in point B),

/--managerial personnel who make decisions about development of work-team forms, who control it and have the greatest opportunity to influence the development of conditions conductive to development of work teams,

/--rank-and-file personnel, future work-team members, who must be convinced of the advantages offered by the new organizational form and to whom must be explained what could be the specific contributions for individuals./

In relation to organizational prerequisites (point B), the training of plant specialists is of particular importance. Without effective training (as confirmed by experience in our plants) it is impossible to instill in them the correct attitude toward work-team forms and, consequently, provide for rendering of quality services by plant units to work teams. That is not even mentioning the lagging adequacy of dealing with additional problems regarding motivation of this category of personnel in the area of work-team forms. Thus, it occurs that these personnel regard work-team forms as a burden and fail to realize (not being familiar with the mechanism of work-team functioning) that work teams take over many operations that previously had to be performed by other plant units on their behalf.

Various forms of plant seminars have been successfully used in the USSR in the practical training of plant specialists, managerial personnel and future work-team members. The thematic contents of a seminar, adjusted to our conditions, could be as follows:

1. The first topic explains the essence of work-team type organization of labor and remuneration, types of work teams, organizational, technical and technological prerequisites for formation of work teams, economic effects of work teams, such as productivity, economy, utilization of capacities, as well as social effects (responsibility, teamwork, discipline, initiative).

2. The second topic is oriented toward establishing the stages of organizational preparations for introduction of work teams, or methodical documentation (handbooks) for workers, managerial personnel and specialists, which explain the roles of these categories of personnel.

3. The third topic is the most inclusive and is oriented toward the technological prerequisites in a specific plant, the problems of remuneration, composition of work teams, leadership and functioning of work teams, control of work-team performance, i.e., additional economic, organizational and technical prerequisites for formation and functioning of work teams.

4. The fourth topic concentrates on explaining work-team khozraschet, the system of planning, assignment and acceptance of tasks, control of the quality and quantity of the work team's performance.

5. The fifth topic is devoted to problems of standardizing the consumption of labor in a work team, together with establishment of comprehensive norms and determination of the numbers of work-team members.

6. The sixth topic analyzes in detail the individual systems of remuneration, to include bonuses, generation of work-team funds, etc.

7. The seventh topic supplements the sixth and is devoted exclusively to the distribution of the team earnings by means of labor-participation coefficients. The criteria for assignment of coefficients to work-team members are discussed at the same time in closer detail.

8. The eighth topic is oriented toward legal aspects: rights and obligations of work-team members, of the work-team leader, reinforcement of work discipline, controls pertaining to labor performed by women, youths, etc. It can be combined with the problems of the social climate in the work team.

9. The ninth topic explains the problems of selection, election of the leader in the work team, relations of the leader and the foreman, work-team leader and the branch secretary of the RDH [Revolutionary Trade Union Movement].

10. The tenth topic deals with problems of increasing the creative contents of labor in a work team, can present selected methods and shifts (rotation of workers, multiple qualifications, expansion of service zones, etc.). Problems pertaining to upgrading the qualifications of personnel, or brigade members, are explained.

11. The eleventh topic is important for managerial personnel and work-team leaders--the system of personnel management in a work team. This topic can be omitted in the training of plant specialists.

12. The twelfth topic is oriented toward the problems of forms of socialist competition in work teams, competition between work teams, systems for assessment of the competition, etc.

13. The thirteenth topic is the culmination of the seminar. It is of particular importance to managerial personnel, but also to plant specialists. It is oriented toward innovative changes and directions in plant management due to introduction of the work-team forms of organization and remuneration. Thus, it is of a conceptual and developmental character.

Methodological Prerequisites

General methodological guidelines issued by central control authorities are not sufficient for successful development of work-team forms. These must be further worked out to fit the conditions of the sector (particularly in orientation on the khozraschet) and specified in maximum detail in regards to plant conditions.

Enterprise guidelines should provide detailed information to production teams (work teams) in regards to problems of organization and management of work teams, rights and obligations, concluding of contracts with the management (when the enterprise decides to implement this form), procedures for computation of bonuses, etc., but must also instruct all managerial personnel and, particularly, plant units about their respective roles in the process of developing work-team forms. All plants in the USSR that attained outstanding accomplishments in this area (e.g., the automobile plant in Togliatti, the Kaluga plant, many plants in Leningrad and Novosibirsk) proceeded in the outlined direction. The level of detailing of some plant methodologies is truly remarkable.

Material and Financial Prerequisites

Every organizational change and, consequently, also work-team forms in an enterprise translate into more or less extensive material or financial expenditures. Introduction of a work team in a specific workplace can (but need not) require, e.g., rearrangement of technological equipment, supplementary equipment, supplementary investments, changes in the structure of skills, etc.

Material and financial resources must be provided for the outlined purposes. Generation of sources for these resources and drawing upon them must be in harmony with the long-term plan for systematic development of teamwork forms in the plant as well as with the system of plant plans.

Legal Prerequisites

The specifics of work-team forms call for reassessment of legislative provisions, whether they promote or limit their development. It involves a wide scope of legal problems and an unequivocal answer must be provided to the question of to what extent the system of plant norms represents a supportive and to what extent a limiting factor of this development. The new organizational forms, new structures and relations must be reflected and codified in the system of the plant's norms.

The fact is that legal prerequisites, be it at the plant or other management level, are important for the development of work-team forms and their role must unequivocally be interpreted in a positive sense.

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Success of the development of the work-team form of organization of labor and remuneration depends primarily on

--comprehensive implementation of elements characterizing these forms,

--comprehensive implementation of this process in the system of intraplant management;

--systematic control of the development of this important orientation through creation of favorable conditions on a society wide level.

Accordingly, continued promotion of teamwork forms calls under practical conditions for explaining the internal mechanism of work-team functioning, explaining the importance of creating favorable prerequisites at plant and supraplant level, dissemination and promotion of positive experiences made by specific plants with the outlined form.

In all three orientations, it is imperative to stress the roles of the individual actors in this developmental process, in plants particularly the role of specialized units and of managerial personnel.

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INDICATORS OF WORKSHIFT RATIO EVALUATED

Prague HOSPODARSKE NOVINY in Czech 8 Oct 82 p 7

[Article by Eng Stanislav Ptacek, CSci, Research Institute of Ferrous Metallurgy, Dobra, Ostrava Branch: "Results Obtained in Monitoring of Shift Work"]

[Text] The workshift ratio of in key area of activity, defined as the ratio of the total number of days worked (shifts) for a given period to the number of days worked (shifts) by the shift with the highest manpower, has been monitored for a number of years. This indicator is assumed to be of great importance as, according to generally accepted opinion, it is alleged to represent the degree of utilization of work centers and production facilities.

Some plant personnel noticed the serious weak points of the existing workshift coefficient. On behalf of ferrous metallurgy, I should like to present selected findings made by plants in the field. Some of them obviously have a more general application, some become manifested more clearly in sectors using continuous production processes, of which ferrous metallurgy is one.

The workshift ratio expresses merely the relative uniformity of distribution of the total number of days worked among the first, second and third shifts. It tells nothing about use of labor and production facilities.

We cannot exclude the possibility that labor utilization in a plant with a higher workshift ratio can be worse than in a plant which, conversely, shows a lower workshift ratio. It is equally possible that a decline in the workshift ratio can be accompanied by an increase in utilization of production capacities in both time and output.

Labor Allocation

Attempts to increase the workshift ratio at any price can prove countereffective and lead to higher costs. A typical example of this can be formal increases in the workshift ratio by a more uniform distribution of days worked into the first, second and third shifts, without any changes occurring in the total number of days worked, labor utilization and the amount of produced output.

Changes in the workshift ratio are the result of many circumstances which affect assignment of manpower to shifts. These effects, whether enhancing or detrimentally affecting the use of shift work, are not routinely recorded and, for that reason, with a lapse of time it becomes practically impossible to explain the changes in workshift ratio and analyze their causes. Moreover, it is difficult to assess whether distribution of manpower into shifts was carried out efficiently and effectively.

Workshift ratio is not subject to planning, so all that can be done is to compare its actual value with the actual state in past periods.

With a certain available number of personnel, each plant, enterprise and operation has a certain most favorable (optimum) way of utilizing shiftwork which allows the production process to progress efficiently and economically. This optimum use of workshift was not subjected to determination in the past and, consequently, the actual workshift ratio cannot be compared to it.

The workshift ratio differs considerably in individual metallurgical enterprises. This is obviously connected with their differing structure of production and, consequently, with differently applied production and operational processes and organization. To this is tied a differing share of work positions that call for continuous assignment of manpower. All this makes comparisions of use of workshift among plants impossible and renders such comparisons worthless, as long as they are undertaken for an enterprise as a whole.

By failing to reflect the volume of production, the workshift ratio fails to characterize its efficiency and effectiveness. Changes in the workshift ratio do not automatically translate into changes in the volume of production or productivity of labor.

The Hidden Potentials of Methodology

Certain inaccuracies are lodged in the very methodology of computing the workshift ratio, if it fails to reflect hours worked in overtime. The latter invariably involves hours worked in the second and third shifts and, consequently, any changes in overtime work affect the value of the workshift ratio. Employment of seasonal workers also distorts (usually reduces) use of workshift.

The workshift ratio is monitored only in the case of workers engaged in the key activity, i.e., approximately 70-75 percent of total personnel. Administrative personnel and personnel engaged in other activities remain unnoticed. At the same time, some groups of administrative personnel also work in shifts where operation of expensive equipment is involved (computer centers, laboratories, automated systems of management, etc.). Their share is increasing in direct proportion to technological development of production.

The workshift ratio does not reflect the actual utilization of working time in the course of a shift, nor does it reflect labor utilization. A protracted and deepening manpower shortage with an excess of employment opportunities necessarily leads to a decrease in the workshift ratio, as there is a tendency to provide full manpower for morning shifts, while manpower for afternoon and night shifts is provided only according to availability.

If we exclude the undesirable formal distortion, then during a shortage of manpower the workshift ratio cannot, for all practical purposes, be influenced one way or the other and, as such, it should not be the determining or conditional indicator for granting bonuses to managerial personnel.

The workshift ratio is subject to seasonal fluctuations in the course of a year. In metallurgical plants it is at its highest in the first and fourth quarters and at its lowest in the third quarter of the year.

An analysis of the productivity of labor in metallurgical plants, conducted by means of breaking down the individual influencing factors, showed that increases in production and growth in the productivity of labor occur primarily due to expansion of the industrial base, whereby its technological development fails to be sufficiently effective, because it provides little savings in direct labor input. Progress in the replacement of labor capital is slow. Under such a situation, any efforts at increasing the workshift ratio are thwarted by manpower shortages. With adequate manpower it would then translate into an overall increase in consumption of direct labor input and, consequently, again slow growth of productivity. For that reason, a development that can be considered to be viable is one where technological development is accompanied by increased volume of production, decreased use of labor and full utilization of all production facilities in all shifts.

Full utilization of basic technological systems in metallurgical plants does not require that all work slots in all shifts be fully manned, because a number of auxiliary and servicing work slots can provide for continuous operation of main production by operating in just one or two shifts. With optimum utilization of the basic production facilities, no change in the workshift ratio appears desirable, as the requirement on increased workshifts ratios without simultaneous reductions in the number of work positions would in this case mean higher consumption of direct labor input and reduced labor productivity.

For each enterprise, there is a certain optimum workshift ratio level and exceeding it is undesirable, because it would lead to excessive consumption of direct labor input.

A Proposal Entailing Advantages and Shortcomings

The current level of recordkeeping and accounting, which we principally refrain from expanding, offer certain, even though limited opportunities for a more accurate monitoring of shiftwork utilization. I shall concentrate primarily on the shiftwork of workers manning machines (SPM), as they are of decisive importance to the results of production.

Rather than the officially monitored workshift ratio at SPM, defined by the share of days worked by workers at SPM overall in the days worked by workers at SPM in the first shift, we recommend the following indicators:

1. percentage of utilization of SPM workers overall = days worked by workers at SPM overall \times 100 / number of SPM \times 365 \times 3, of which
2. percentage of utilization of SPM workers on the first shift = days worked by workers at SPM in the first shift \times 100 / number of SPM \times 365.

3. The workshift ratio at SPM at full manning of work positions = percentage of utilization of SPM workers overall x 3 / 100.

These indicators have been computed in tabular form for 11 metallurgical enterprises of the Ferrous Metallurgy VHJ [economic production unit] for the year 1981. The last column under 4 shows the officially monitored workshift ratio at SPM for comparison. Under indicator 1 appears utilization of SPM computed to its theoretical maximum (i.e., continuous operation throughout the calendar year), because only such an indicator warrants comparison between plants. All indicators could provide interesting, provided there is reliable recordkeeping of days worked at SPM as well as a correct determination of the number of SPM. Either of the two indicators cannot be made reliable in the foreseeable future. Even if we had reliable documentation (correctly and methodically determined with uniformity), all we would gain is merely orientative indicators, because the number of shifts worked--without taking into consideration of actual utilization of working time in the course of the shift--will always provide only a rough measure of utilization of working places.

INDICATORS OF SHIFT WORK UTILIZATION ACCORDING TO THE PROPOSED METHODOLOGY

Enterprise	Indicator			
	1	2	3	4
1	81.06	92.13	1.832	1.988
2	43.96	63.20	1.229	1.964
3	51.60	66.01	1.548	1.780
4	43.79	74.11	1.314	1.772
5	39.01	64.96	1.170	1.802
6	52.38	74.89	1.571	2.104
7	44.20	58.88	1.338	2.399
8	48.25	63.89	1.448	2.268
9	57.45	73.46	1.724	2.340
10	27.33	31.41	0.817	2.001
11	43.53	54.85	1.308	2.390

The computed overall utilization of SPM at the same time reaffirms the lack of suitability of the workshift ratio used which can provide entirely misleading results. The currently used coefficient merely expresses the uniformity of distribution of the number of days worked into the first through third shifts and fails to give any consideration to utilization of work slots. That is shown by the proposed workshift ratio at SPM with full utilization of work slots. It reflects the actual use of shiftwork as opposed to the maximum possible (theoretical) use of shiftwork equal to 3. The difference between the two coefficients of utilization shiftwork (proposed and officially monitored) are considerable and the relative positional sequence of plants computed according to them is entirely different.

The mentioned analytical indicators must in no case be overestimated. They offer a relatively rough outline of labor utilization and work positions. Their greatest shortcomings is that they do not combine the utilization of personnel with production results and that their precision is rather poor, because they do not take into consideration actual utilization of workers in the course of a shift.

GERMAN DEMOCRATIC REPUBLIC

BETTER COST ANALYSES SEEN NECESSARY TO REDUCE EXPENDITURES

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[Article by Prof Dr Helmut Koziolek, economist, member, SED Central Committee; director, Central Institute for Socialist Economic Management; SED CC; chairman, Council for Economic Research; member, GDR Academy of Sciences; member. EINHEIT editorial board: "Expenditures and Results"]

[Text] Why is a favorable cost/benefit ratio such an urgent economic need? The answer contains not only some essential reasons and the results achieved thus far, but furthermore the sets of instruments are shown by which in the enterprises and combines and also in the other sectors of the social reproduction process that ratio can be decisively improved. A special point is made in this context of the role of cost analysis.

A decisive change in the cost/benefit ratio is the basic economic requirement for the present and the coming years. By the economic strategy our party issued at the 10th party congress it has created a clear conception for achieving an unprecedented performance improvement. That goal has to be reached by means of, in substance, the same or smaller volumes of energy sources, raw materials and working material, which means nothing else but decisively reducing production consumption, clearly improving the cost/benefit ratio. Production growth thus must largely come from efficiency improvement--the output must grow faster than the expenditures for live and embodied labor. Greater efficiency thus becomes the major source for present and future economic growth.

Why is a more favorable cost/benefit ratio such an urgent economic need in all sectors of our society, and especially of course in the economy? The SED Central Committee has supplied a clear answer to that. A higher output through lower costs "simply is a basic requirement at a time when, due to scientific-technical progress, a higher labor productivity is more than ever decisive."¹

Proceeding from this answer of substance there are three essential reasons why the improvement of the cost/benefit ratio is of such decisive importance:

First, the further shaping of the developed socialist society and the satisfaction of men's changing and expanding needs require a high rate of economic growth intensive in kind. The way to it can lie only in decisively improving the efficiency of all labor where the output must rise faster than the expenditures for embodied and live labor. Karl Marx already said that it was by no means the same "to create the same product with half as much live and embodied labor as before or, by the same labor, double the previous product. In the first instance labor--in live or embodied form--is released and can be used elsewhere; the power of disposition over labor and capital grows."² Of course, for performance improvements in our society both ways are significant because, no doubt, what matters is to produce more, much more in fact; yet the first approach also has an especially high place value as it saves labor and basic assets. This Marxist approach to efficiency expresses the meaning of the economizing and intensification process as a social developmental factor.

Second, the development of the world economy also proves it is ever more important, and possible, to produce more through reduced expenditures.

In talking about changed conditions today that includes the revolutionary process in the development of the productive forces, ongoing worldwide. That is expressed in such developments as the production and application of microelectronics and robot technology. New and higher intrinsic values in consumer goods and investment goods are produced through greatly reduced expenditures. It provides wider leeways for the use of material and intellectual potentials and expands the accumulation capacity.

Especially in connection with the exacerbation of the international situation by the most aggressive imperialist circles, their policy that is threatening the peace and the economic warfare unleashed by the United States--particularly by its trade, credit and interest policy--against the socialist countries, we must, on behalf of strengthening socialism, greatly accelerate our scientific-technical progress. Gaining further ground in the class conflict calls for economic growth through efficiency and labor productivity improvements.

And then there is a third reason that compels us to improve the cost/benefit ratio--the enormous rise in raw material prices. To counter that, we must improve our efficiency, and this mainly by means of intensification, i.e., we must reach our results by using fewer resources, not by increasing our costs. That is more economical than a primarily extensive development. Analyses confirm that--apart from ecological aspects, from our responsibility to future generations--energy saving measures require only half the expenditures that would be needed to expand the requisite energy capacities. In metallurgy, an extra production of one kilogram of rolled steel costs circa M 10, but the expense for material saved in optimizing material savings costs per kilogram only between 3 and 5 pfennige. Furthermore, expanding the extractive industry again is extremely cost and energy-intensive, i.e. relatively higher investments and much larger volumes of energy are consumed there than in the branches of the processing industry. The key to meeting the demands in energy and raw materials therefore lies in their ever more rational use and in the need to get ultimately more products high in intrinsic values through enhanced refinement of initial raw materials and semifabricates.

Nor shall we in the future renounce expanding our own raw material base; in confronting the price explosion on the world markets since the 1970's, we have to attribute a high place value to our own resources and extract them with increasing effectiveness.

Some remarkable results were already achieved in our improving the cost/benefit ratio. In our produced national income we accomplished a 25-percent increase in the 1976-1980 period over the 1971-1985 period, in industrial commodity production, one of 32 percent; specific energy and raw material use, on the other hand, was reduced by an annual average of 3.9 percent. Especially last year, noteworthy advances were made: the produced national income was developed dynamically by 5 percent, and this--which is of extraordinary importance--without increasing primary energy consumption and while reducing the specific consumption of economically significant energy sources, raw materials and material by 5 percent. Comrade Erich Honecker, secretary general of the SED Central Committee, proceeding from a thorough analysis, emphasized at his concluding speech at the fourth plenum that, gaged against the tasks before us, more acceleration however is necessary in our performance and efficiency development as scheduled by the five-year plan.

The cost/benefit ratio expresses the efficiency, the degree of effectiveness or intrinsic effect of labor.

Efficiency is gaged against the drop in the expenditure of live and embodied labor and the increasing yield. The latter includes producing the national income in the intrinsic value structure socially required. This is particularly important as the key to economic growth, ever better provisions, and higher exports bringing in hard currency. Yet higher economic efficiency is not only the concern of production but also of distribution and consumption, of the non-producing sectors and the services sector and public health and education.

To get an increasingly better cost ratio from basic assets, raw and working materials, live labor and products, and our national income makes entirely new demands on us. While in the past the improvement of our effectiveness mainly came through increasing allocations and resources, so that production would grow, now the task is to ensure a high rate of production growth through the same and partly even fewer resources. Greater labor efficiency means economically more end products in combination with a perceptible reduction in production consumption and in the material expenditures in all public sectors. An ever larger part of the growth in our national income must come from the reduction of production consumption.

In his report to the 10th party congress, Comrade Erich Honecker commented: "A cutback in working time must not come at the expense of greater investment expenditures, economic material management, not at the expense of quality. It is not enough to do the one or the other. Saving live labor and material, better using available basic assets and investments--only when both go together will we get the results we need."³

Higher Effectiveness of Live Labor

Already Karl Marx pointed out that the advances in science and their technological applicability had to crystallize particularly in an increased labor productivity. It is important to achieve a much higher level of labor productivity at a broad range and to approximate the speed in increasing labor productivity to that in the development of our scientific-technical potential, so that we can make a still greater contribution to boosting the national income. To ensure a proportionate and effective development of the GDR economy according to plan, an increasing number of combines and enterprises have to increase their labor productivity faster than their output. Combines should consider still more rigorously that more of a cutback in working time and jobs is bound to release manpower at new magnitudes. Therefore it is an important task to organize relevant projects, under political party organization leadership, by following the model of the Schwedt initiative. The Schwedt slogan, "fewer produce more," is not just one method among many; it is the basic way of cutting back jobs while production volumes and qualities increase and releasing manpower for other important jobs. More manpower, after all, is urgently needed for multishift capacity work in highly productive installations, for the construction of means of rationalization and for the consumer goods departments in the enterprises and combines that produce the means of production. Science and technology is the major factor, but also the use made of the qualification level and further training of specialists and their correct employment are important reserves for it.

Live human labor, however, is not only a cost element. It always has been and will remain the source of all social movement. It is--to quote Karl Marx--the "life-giving fire of production" and so becomes the point of departure for all considerations regarding the use of the efficiency factors. The ability to produce scientific-technical innovations and to apply them, and the capability of doing skilled work, will grow to the extent that they are made use of. Therefore the key issue is to assign the available great intellectual potential always in a targeted manner so that it is embodied in qualitative changes in technology, product quality and production structure. Thereby live labor crucially controls the scope and quality of products.

Level and Scope of Basic Assets Affect Efficiency

"A key problem for our overall economic efficiency, in view of the enormous assets of our economy, is the modernization of available basic assets. Notions that want to purchase every percentage of increased labor productivity by an equally fast or still faster growing investment expenditure defy economic efficiency."⁴

The 10th party congress assigned the task to make a capacity use of production funds for 16 or 17 hours per calendar day. Here we must mainly eliminate the level differences in operational time frames--sometimes amounting to several hours--among the combines in one and the same industrial sector by leading the ones that fell behind closer to the level of the more advanced ones. Resolute struggle also against unanticipated downtime must lead to a noticeable improvement of the basic assets quota, mainly by a rigorous implementation of preventive repair measures. Most important is reducing equipment failures through breakdown and other technical interference.

It also is a matter of pushing modernization ahead more on the basis of the amortization quota. The modernization of the material-technical base largely must come from an economically sensible replacement of used-up basic assets, that is to say, replacement should come in more and more in terms of a value-equivalent reproduction of basic assets only. As to their intrinsic values, the capacity of the replaced basic assets, it is however more and more a matter of expanded reproduction. The modernization of extant equipment and installations is gaining more and more importance. Internationally, there are indications that conversions or installations in the equipment we have, through modern control and propulsion devices and so forth in part are much more efficient than the scrapping of old and the use of entirely new equipment. And then also, the basic assets themselves exercise a great effect on the outcome. It means concentrating investments on rapidly introducing the latest scientific-technical data, strengthening by means of investments the range of scientific-technical progress, and pushing ahead economic innovation processes with highest economic efficiency. The enterprises and combines in the metalworking industry in 1981, e.g., managed to cut back more jobs than create new ones through investments. And that indeed is the goal of all industry in the GDR this year. The efforts toward improving the basic assets economy and efficient investment policy belong together there, indissolubly.

Reducing Energy and Material Consumption

The targets set down for it in the five-year plan most clearly mark the fundamental qualitative change of the current five-year plan compared with previous plans. The planned reduction of specific energy consumption up to 1985 alone comes to an equivalent of 70 million tons of raw brown coal. That is part of the purpose of the economic strategy of the GDR, directing us to make a still much more economic use of energy sources and raw materials and crucially improve energy and materials management in all sectors.

For any given total product, the size and the reduction in the energy and material consumption greatly control the size of the national income and, thus, the leeway for the development of consumption and accumulation. Reducing production consumption is of special importance in this because it embodies the largest share of expenditures, in absolute terms, in the social reproduction process as well as in the combines and enterprises.

Five-year plan goals envisage a reduction of production consumption in relation to the total social product. How great and complicated those tasks are becomes apparent if one considers that the reduction of the specific consumption of economically important energy sources, raw materials and material up to 1985 is set at a minimum goal of an average 6.1 percent annually, though average annual reduction rates in the previous five-year plans came only to 2.8 or 3.9 percent. That such a requirement in the current five-year plan is realistic can be seen by the fact that, for all that, the first year of the five-year plan did come up with a 5-percent reduction rate. These reduction rates in energy and materials consumption are due to penetrating material processes in all economic sectors. A concrete expression of the reduction in energy and material consumption also lies in the return of funds so they could be used for other economic ends while they also facilitated in absolute terms a reduction of raw material and energy production in our economy as such.

As in other cost elements--live labor and the basic assets--the effect of energy and materials management on efficiency does not only come from cost reduction. It also affects the outcome. Therein lies the starting point for refining. To make more of and improve the available in that on every production level and in every branch materials supplied are refined more highly is a priority task. In the final analysis it is a matter of gaining from original energy sources and raw materials in the economy a maximum of high-grade end products for the economy, proper as to demands. This need attaches to every raw material we use, to every step and branch of manufacture, to basic research and technology and methods development, construction and design.

A Growing Social Net Income

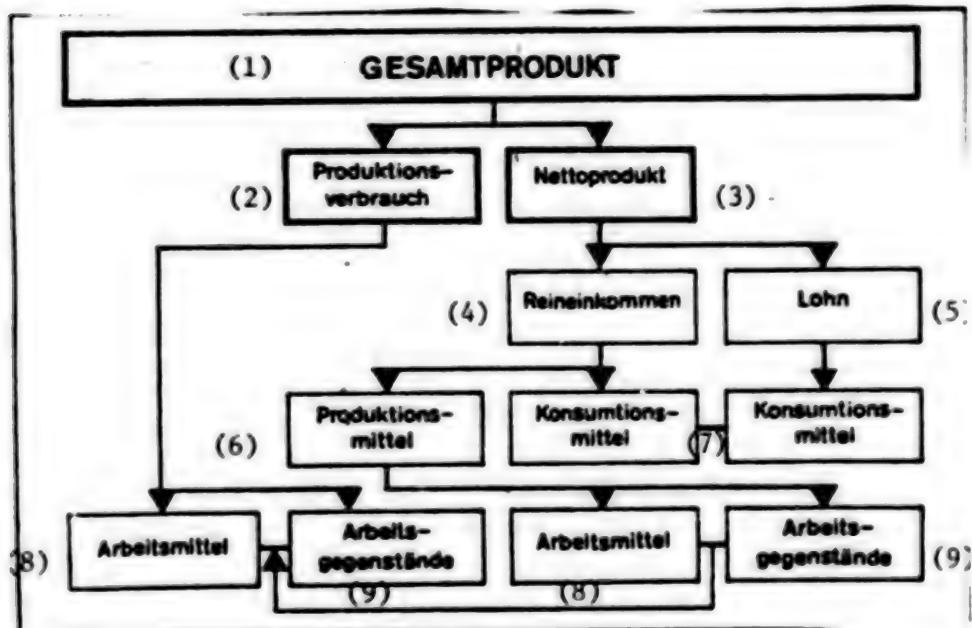
Efficiency also depends on the scope and structure of the outcome. Here the national income or net product do not yet adequately express the economic cost/benefit ratio. Improving the cost/benefit ratio at the economic range must express itself mainly in the constant rise of the social net income.

As a financial manifestation of the surplus product, the social net product is a substantial component of the national income, gained out of the profits made by the combines and enterprises, which has the inevitable tendency steadily to increase its relative share in the national income. This inevitable connection is due to the fact that when labor productivity increases, it is that part of the social productive labor capacity that has to be used for the production of goods and services which relatively, i.e. in relation to all available productive live labor, diminishes. So there is a relative growth in extra labor, which in socialism assumes the form of labor for society.

Relying on a growing social net income, socialist society creates the means to expand the material-technical base, secure and gradually elevate social progress, and ensure national defense. As the decisive source for strengthening the material-technical base, it also is the basis for a continuing steady increase of labor productivity. The development of the social net income thereby becomes both the outcome and the source of labor productivity development. The social net income furthermore furnished the growing "social funds from state resources" by which essential redistribution processes are carried out. That pertains, e.g., to the price supports for the products of everyday need for the population in accordance with our sociopolitical program. It is a mobilizing factor in political mass activity and in conducting socialist competition.

The size and developmental tempo of the social net income therefore reflect the essential basic relations needed for the fulfilment of the main task "of raising the people's material and cultural standard of living on the basis of a high developmental tempo in socialist production, greater efficiency, scientific-technical progress and growth in labor productivity."⁵ That requires producing products and performing services that meet the needs of the population, the economic requirements and the foreign market conditions in volumes, qualities, assortments and costs.

Material Structure of Total Product and National Income



Key:

1. Total Product	5. Wages
2. Production Consumption	6. Means of Production
3. Net Product	7. Means of Consumption
4. Net Income	8. Tools of Labor
9. Labor Objects	

The lower the prime costs per product or per M 100 each in commodity production, the greater is the profit of the enterprises and their contribution to the net income of society, the greater is the benefit for society. Prime costs and their development thus become an important yardstick for the economic activity of a combine or an enterprise. That is the centerpiece of economic cost analysis for the improvement of which on the basis of the plan the SED Central Committee Politburo on 3 November 1981 adopted important resolutions.⁶ The Law on the Development of the GDR's Economy Between 1981 and 1985 set down for this period in the industrial sector an average annual reduction of prime costs at 3 percent.⁷ That is necessary to ensure the growth of the produced national income. It also includes the necessary reduction of energy and material consumption. Compared with previous cost savings, this is a high objective. In 1981, total prime costs for realized commodity production were dropped by 1.5 percent compared with 1980. That volume was the largest cost reduction ever achieved within one year. Yet our economic strategy calls for still more consistent efforts in cost reduction so we can fulfil our ambitious goals.

Costs Control Efficiency

If one quantifies the factors that controlled the 1981 cost reductions in industrial combines, one must first mention the economic effect that scientific-technical progress has had on improving the energy and materials management.

A high energy and materials economy also this year forms the potential source for attaining the planned cost reduction. Every mark saved is an absolute growth in national income; conversely, material expenditures causing economically undesirable inventories, incomplete production, unwanted finished products or bottleneck mean a diminished national income. To prevent such losses, one must struggle everywhere with the greatest determination for improving the cost/benefit ratio. Only the reduction of prime costs in their entirety can increase the net income. The struggle for at least a 3-percent reduction in prime costs annually challenges the economic effectiveness of science, technology, socialist rationalization and investments. A consequence for the management and planning of scientific-technical progress therefore is to decide on the cost reductions for coming years even while economic requirements are assigned for R&D projects--concretely, when official duty records are confirmed--and for rationalization projects and investments. Thorough economic accounting begins in that reproduction phase. It has to be seen to it in management activity that the economic goals of science and technology govern the economy of the combine throughout its entire intensively expanded reproduction cycle and make a real difference in it.

The cost conceptions worked out in all combines in the five-year plan till 1985 have to be active management tools. Together with the scientific-technical development conceptions (e.g. for refining, product development, rationalization or the application of microelectronics and robot technology), cost conceptions should look ahead in the demands they make on the economic effectiveness of scientific-technical work. The economic categories of costs and prices are important focal points for scientific-technical work in our economic reality of the 1980's.

In our high degree of foreign economy interlinkage and integration relations within CEMA, the surveyor's rod for the scientific-technical level of products and for the cost volume is furnished by international standards. In straightforward economic terms that means that a product or commodity may cost only as much as will in the final analysis make it saleable with profit on the international market.

No one can evade this unequivocal attitude toward costs. Karl Marx taught us "that what determines the value is not the time during which something was produced but the minimum of time in which it can be produced, and that minimum is ascertained by the competition."⁸

Ultimately then, the effectiveness of our export and import relations depends on the level of productivity and effectiveness of our own work. The crucial question here is: How much labor is contained in the goods we export? Costs must be brought down. To the extent that we achieve it, the imports themselves become "cheaper"; because we receive them for the labor put into our exports. We have to compensate for raw material price hikes on the world markets by enhanced refining, by improving the scientific-technical level of our export products, and ultimately by increasing the productivity and effectiveness of our production altogether.

When one wants to reduce costs, one must first of all know exactly what they are. That is true for large and small dimensions, especially for the conscious and creative participation by the work collectives in the combines and enterprises. Planning and accounting for costs down to the jobs themselves is indispensable for it as a method of socialist industrial management. That also is an important condition for competition and budget accounting and for material and moral incentives. Of equal importance is providing precise norms for production consumption and all types of expenditures, including the managerial and administrative ones. Expenditure and consumption norms constitute the social measure for admissible costs; remaining below their limits, especially, is in the interest of the economy, of each enterprise, of all working people. Tried and tested methods of socialist industrial management also include the intrinsic value versus cost analysis, cost reports, topical cost accounting and performance rating.

Economic cost analysis must be used still more effectively for that purpose. The indispensable basis for accurate cost planning and for the supervision over abiding by planned costs is a detailed cost accounting in terms of types of costs, cost liabilities and cost centers. Costs must constantly be measured, compared, controlled and analyzed so one can incessantly trace economic reserves in the production process for improving the cost/benefit ratio. Cost accounting and analysis are also a good basis for the political mass activity and the socialist competition conducted by party and trade union organizations. Costs must never follow actions randomly; they are to determine the actions. On the basis of the state plan, therefore, the economic interests and initiatives of the work collectives are to be directed still more definitively and effectively at resolutely cutting costs and be tied up with material incentives.

FOOTNOTES

1. Comrade Erich Honecker, "Aus dem Bericht des Politbüros an die 3. Tagung des ZK der SED" (Excerpts from the Politburo Report to the Third SED Central Committee Plenum), Dietz publishing house, Berlin, 1981, p 27.
2. Karl Marx, "Das Kapital," Vol III, Marx/Engels, "Werke" (Works), Vol 25, Dietz publishing house, Berlin, 1964, p 702.
3. Comrade Erich Honecker, "Bericht des Zentralkomitees der Sozialistischen Einheitspartei Deutschlands an den X. Parteitag der SED" (SED Central Committee Report to the 10th SED Congress), Dietz publishing house, Berlin, 1981, p 55.
4. Günter Mittag, "Full Speed Ahead Toward the 10th Party Congress," NEUES DEUTSCHLAND, 4 December 1981, p 6.
5. Comrade Erich Honecker, "Bericht . . .," op. cit., p 48.
6. Cf. also "Decree on Further Perfecting Economic Cost Accounting on the Basis of the Plan," GBL, Part I, No 3, 1982.
7. "Law on the Five-Year Plan for the Development of the GDR Economy 1981-1985," GBL, Part I, No 35, 1981, p 408.
8. Karl Marx, "The Misery of Philosophy," Marx/Engels, "Werke," Vol 4, Dietz publishing house, Berlin, 1959, p 95.

GERMAN DEMOCRATIC REPUBLIC

INTENSIFICATION PROCESS REQUIRES BETTER QUALITY MANAGEMENT

East Berlin EINHEIT in German Vol 37 No 10, Oct 82 (signed to press 18 Sep 82)
pp 1034-1040

[Article by Prof Dr Harry Nick, economist, research program director, Institute for Political Economy of Socialism, Academy of Social Sciences, SED Central Committee: "Economic and Ideological Requirements for More Effective Reproduction of Basic Assets"]

[Text] The implementation of the party's economic strategy requires imperiously that full use be made of the possibilities growing through our scientific-technical progress in including its results in a new way in the reproduction of the extant material-technical base. To what extent do the relations change then between simple reproduction and accumulation? Which modes of thinking and habits have to be broken and which prerequisites have to be laid to turn modernization into the most important form of reproduction?

A successful implementation of our party's economic strategy for the 1980's sets new measures for the effective use of all our economic resources, i.e. the social labor capacity, the energy and material resources, the basic assets and investments. To conform to all that means still more rigorously helping qualitatively new tendencies in effectiveness development to prevail.

In using our social labor capacity, e.g., this involves a higher rate of speed in increasing our social labor productivity and reversing the ratio between jobs to be cut back and to be newly created, with the emphasis placed on the cutbacks. In using energy and material resources we have to come up with rates in economizing that will at least equal the growth rates in our economy or even exceed them. In recent years our national income grew strongly and relatively steadily, yet because of a faster increase of production consumption the national income share in the total social product slightly declined at times. Based on already achieved positive results in recent years, we must now reverse that tendency by resolutely cutting production consumption. "While the national income climbed above that of 1980 by 4.8 percent, production consumption rose by 3.7 percent. That reinforced a tendency which first began to show in 1979. If we

succeed in altering that interaction further toward the positive, we shall, through cutting production consumption, tap an ever more important source for the growth of our national income."*

As to the use of the basic assets and investments, we must achieve an alteration in the development ratios between labor productivity, basic assets allocations and basic assets quotient (commodity production per 1,000 marks in basic assets). In the 1980's labor productivity must grow faster than labor's assets allocations so that the production per 1,000 marks in basic assets rises and the increasing basic assets quotient becomes a factor in labor productivity increases. If one compares the rise in basic assets allocations in the economy in 1981, as of 4.9 percent, "with the increase in labor productivity, of 4.4 percent, it becomes apparent that the trend has to be reversed there still."**

As effectiveness criteria apply to the use of all basic economic resources, considerations about ways and means of advancing effectiveness must not pertain to but one type of resources or another. Necessary is, rather, that a more rational use of our capital goes hand in hand with energy and material savings, cutbacks in live labor (and jobs) and quality improvements.

The resolve of our party to carry on with determination the proven course of the main task in its unity of economic and social policy even under more complicated conditions is based on the fact that--as revealed by the economic strategy for the 1980's which the 10th party congress issued--we have what it takes to speed up noticeably the advances in effectiveness. This also implies a deeper sense for the nature of the changes that have to be made in our economic activity. It lies in a resolute transition to the intensive type of reproduction, to the type of reproduction that accords with the developed socialist society or, to put it more precisely, a transition to a type of reproduction that at one and the same time economizes on labor, energy and material resources, and funds.

To pursue the basic lines of our economic strategy with the greatest rigor becomes all the more necessary in view of the considerable changes of the external conditions for our economic development. There is no denying that factors like the policy threatening humanity, especially by the most aggressive forces of U.S. imperialism, the economic crisis in the capitalist countries, the embargo and high interest policy of the U.S. government and the economic warfare it has unleashed affect the conditions of our economic management, that we have to face continuing changes in world market prices, and that the dialectical interactions between external and internal conditions have become sharper altogether. All these changed conditions compel us to enforce today the basic lines of our party's economic strategy all the more stubbornly and faster.

*"Aus dem Schlusswort des Genossen Erich Honecker, 4. Tagung des ZK der SED" (From the Concluding Speech by Comrade Erich Honecker, Fourth SED Central Committee Plenum), Dietz publishing house, Berlin, 1982, p 93.

**Ibid., p 94.

Improving the Effectiveness of the Available Potential

The objective chances that are favorable to advances in effectiveness, especially those through which scientific-technical progress affects economic growth, have perceptibly become greater in recent times. That is with which the needed changes in basic assets reproduction are mainly tied up.

Our basic assets are a type of resource of the highest dynamism. They are going to grow in the future too, qualitatively above all, as well as quantitatively. Their growth will depend far more than in the past on a higher tempo in the modernization of the available potential, which goes together with a gradual elimination of capital assets. That development is causally connected with the fact that the scientific-technical revolution both makes possible and requires for the data of scientific-technical progress to be applied in a new way in the reproduction of the material-technical base, so that greater weight attaches to investment-saving forms of reproduction. In view of the sharp limits to investments, the full account of that fact, the use of the qualitative factors in the reproduction of our capital assets, is of greater importance than ever. Notions such as that through the scientific-technical revolution the contradiction would grow between the latest science achievements and the technical-economic level of the extant material-technical base, or that the inertia of the extant potential would be the most serious obstacle to making economic use of scientific-technical progress because two different types of technology would collide, are denied by reality.

The revolutionizing technical achievements that hold the center of our economic strategy, like microelectronics, robot technology, data processing and electronic controls, radiate into the general technical-economic level of production and the technical base of the non-producing sectors more than has probably ever been the case in the history of technology. They are in essence a technology of intensification, of rationalization, and they take effect out of their essential core, through qualitative changes in the extant material-technical base. Their economic effects can mainly be garnered by way of an all-inclusive socialist rationalization. Under such conditions it becomes not only a matter of utility but a matter of necessity dictated by the economic specifics in modern technical development to view scientific-technical progress above all from the vantage point of the requirements and conditions for the modernization of the extant material-technical base and of the reproduction process as it functions, and to have it operate that way. This way then there come to the fore the questions about the dissemination speed for technical innovations, their highly effective combination with the extant material-technical base, the absorption capacity the existing economic organism has for technical innovations, and its ability to transform technical innovations into economic results. Accelerating the scientific-technical progress, especially a more expedient introduction of the new technologies that are needed for improving the effectiveness of the reproduction process, calls for a thorough analysis of all the factors and conditions that determine the absorption capacity the material-technical base has for qualitative changes.

Practical experience proves that opening up fields of application for these new techniques and technologies gives rise to extremely ambitious tasks, all the way from R&D to investment measures.

Sometimes one hears the derogatory remark that the application of microelectronics today is comparable to the first automobiles which initially had been nothing but "coaches with power motors"--a new technology "grafted" upon an inadequate technical base with economic potentials which could not be fully exhausted that way. Here one must point out that it is altogether in line with objective logic in the development of the material-technical base initially to combine revolutionary technical transformations with the available technical potential and to keep, to a large extent, producing by means of that potential. The development of the material-technical base shows a much greater continuity than the products and procedures produced by science; it cannot be exchanged at the same extent and rate as found in the replacement of generations of products and procedures. And finally: the "coach with a power motor" plainly was not in part a coach but truly an automobile, a vehicle moving under its own power.

What matters mainly is to change, through appropriate modifications in technology and organization, the environment of the new technology in such a way and adapt it to the requirements and conditions, e.g., of microelectronics and robot technology, so that, however complicated it is and however much time is needed for it, the highest possible economic performance is achieved as rapidly as possible and the revolutionary technical transformations are implemented in a manner of saving as much investment as possible. And the condition for that is that the use of microelectronics and robot technology is conceived not only in terms of those techniques but mainly with an eye to improving the effectiveness of the extant material-technical base, the reproduction process as it functions.

All this leads to the following: What decides the success in the use of microelectronics and industrial robots is how it gets correlated with the intensification and rationalization conceptions for improving the material-technical base and is aimed at the effectiveness of the entire reproduction process. So this is by no means a matter of expensive investments for completely replacing the capital assets; on the contrary, what matters is to make extensive use of the objectively extant material potential and place investments in such a way that the potentials for effectiveness that are inherent in the extant capital assets are released at an optimum. Essential is that the resources necessary for the qualitative improvement of the material-technical base must be produced through intensification itself. Only through effectiveness development and through reducing extensive investments can the resources be gained that are necessary for the modernization of the extant material-technical base.

Greater Demands on Management and Planning

The intensification of basic assets reproduction makes high demands on the quality of management and planning; it requires doing away with certain thought habits that were part and parcel of the strong extensive reproduction in previous years and requires a continuing purposeful formation of the material prerequisites for intensification. "Rigorous intensively expanded reproduction calls for a different approach both to the basic assets economy and the material and energy economy."^{*}

^{*}Guenther Mittag, "High Performance Growth for Further Strengthening Our Republic," EINHEIT, No 5, 1982, p 473.

Practical experience shows that rationalization, modernization and reconstruction and entering investments into the ongoing production process--all this while production increases--in many ways make much higher demands on the quality of management and planning than extensive investments.

If in an enterprise the capacity is extensively expanded or a new production complex is set up, the general rule is that a general consignee is charged with placing the investments who assumes the sole responsibility, as it were, from location testing via construction and equipment assembly until the project is completed and handed over for operations. The management of the enterprise in which investments are placed holds the position of the consignor, the control agency, but must not itself manage those processes.

It is entirely different in rationalization investments. A reconstruction project has to be managed by the enterprise management itself. That requires a special construction staff and considerable capacities of the enterprise itself for project planning, the construction of means of rationalization, and building. At the same time, high and complicated demands arise for organizing and managing the ongoing production. A special labor regimen is generally needed throughout the entire reconstruction period. To the extent that one resorts to services from outside, more is demanded of the consignee as well. "Remote" project planning is impossible; the project planner must spend relatively more so as to adapt the changes necessary to what there is already. When structural changes are needed, large-scale technology suitable in new construction can be used only to a limited extent; the statistically recorded "labor productivity" is lower for reconstruction measures, which are in general economically much more effective, than in new construction. A certain tendency toward extensive reproduction in the past is attributable to that in this regard the interests of the investors and consignees met.

Scarcer resources and changes in performance ratings have now made a difference which we must stick to as best we can. The tough struggle for a more favorable cost/benefit ratio in our economy imperiously demands steering at intensification in one's own sector, without reservation, even in view of the fact that it might be extremely difficult and strenuous.

A consistent intensification of the economic reproduction process implies that all investments are placed more effectively and that the concentration of investment activity is heightened. Beyond and above the economic effects the investment process is meant to achieve directly, it is extremely important that the concentration of economically significant projects contributes to an expedient implementation of structural changes needed in our economy. It would, however, be extremely detrimental for rigorous intensification if this necessary preference for economically significant projects were to mislead us to slight or even neglect such smaller projects as modernization and rationalization investments often are. Those who run larger projects should be fully aware of their responsibility for a thrifty handling of investment funds also because they especially, through greater thrift, can enlarge, not insignificantly, the proportion of useable resources needed for the modernization of the extant material-technical base.

The Growing Weight of Simple Reproduction

One of the most important questions in intensive basic assets reproduction is about the role of simple reproduction, and about the change of relations between simple reproduction and accumulation. "There still is the notion expanded reproduction simply requires an expansion in value terms of the available basic assets, which should then automatically attract more investments. But as one knows, Marx already pointed out that through a higher economy of constant capital simple reproduction by itself could become an accumulation source."^{*} Decisive there is that increasingly, through the processes of simple reproduction, the data of scientific-technical progress are drawn into the reproduction of the extant material-technical base, whereby real accumulation effects are achieved. From this results the great importance of combining everything newly produced by science and technology with the objectively extant material reproduction conditions, so that our capital assets at the "moment of being renewed in head and limbs is reborn in a perfected technical mold."^{**}

Under the conditions of the scientific-technical revolution it becomes economically ever more important, on the one hand, to pay much greater attention to the entire process of the qualitative renewal and more rational use of the growing material and embodied potential and to bring the data of scientific-technical progress more and more to bear by means of the change in this potential. On the other hand, basic innovations likewise become ever more important for our total progress and must be combined more compellingly and faster with the "normal" technical progress and lead to changes in the "average" general technical level.

Among the most important prerequisites for a higher speed in the qualitative renewal of the material-technical base and for a higher speed in spreading scientific-technical innovations throughout the extant economic organism, along with an improved balancing among economic processes, are more "elastic" techniques, more of a modernization suitability for production equipment, and greater variability for the use made of structures. The thesis that the discrepancy between the physical wear and tear of an installation and its moral wear and tear had constantly increased along with scientific-technical progress, being used indiscriminately, had turned into the economic dogma, as it were, that installations should have to be superseded long before their "physical longevity" was exhausted and be replaced by new and more effective models. All in all, the effectiveness gain achieved thereby would be greater than the loss incurred by any premature replacement, and furthermore--so it was claimed--no highly modern equipment could be produced by obsolete equipment. Amortization schedules should thus be guided by moral, and not physical, wear and tear, and this kind of approach was also demanded for the targets in various forms of basic assets reproduction and, in fact, partly realized. The basic form of reproduction, by which the data of scientific-technical progress flow into the extant material-technical base, so far was mostly the replacing of obsolete equipment. Current maintenance was aimed at functional upkeep of the installations, and the goal of rather expensive general repairs was essentially to recover the installations' original parameters. Yet this kind of reproduction of our capital assets does not satisfy the requirements of intensification.

^{*}Ibid.

^{**}Karl Marx, "Das Kapital," Vol I, Marx/Engels, "Werke" (Works), Vol 23, Dietz publishing house, Berlin, 1962, p 657.

Modernization Calls for "Elastic" Techniques and Complex Solutions

It would be economically absurd to replace all equipment completely every 4 to 6 years--that roughly is the working life of a generation of working tools--and would exceed the capacity of any economy. Rather, under the conditions of intensification such solutions are gaining importance which counteract the moral wear and tear of working tools while improving their modernization capability. Through increasing effective solutions, drawing on the latest scientific-technical data, a positive alternative for replacement has to be created, which will diminish the moral wear and tear and turn the modernization of installations into the most important form of reproduction. So it becomes necessary that even the design of working tools sees to it that they do not need much maintenance and that installations can be modernized while in operation. As clearly as a new generation of machinery must differ in its performance parameters from the one before, equally much one should always see to it that in the technical setup of the installations the differences between machinery generations do not become unnecessarily "hard."

Standardization, which provides uniformity mainly for the component and component groups, plays an outstanding role in this process, but so does the enforcing of effective labor part relations and an active cooperation between the producers and the users of the new technology. These are extremely important aspects in using the advantages of the socialist planned economy on behalf of purposeful intensification in the 1980's. By means of the assembly of prefabricated machine parts, e.g., considerable savings and time reductions can be achieved in the production preparation phases. Other important possibilities for more rational upkeep result from it--by exchanging certain components and component groups, which may cut down the downtime because of needed repairs--as does more modernization by way of general repairs.

Mainly the most recent practical experiences demonstrate that through the exchange of particular component groups and the addition of new ones considerable economic effects are obtainable. In one metallurgical enterprise, for instance, instead of the originally intended replacement of a press at a clip of M 14 million, a target-directed modernization was carried out that only cost M 4 million in investments. The effect was this: mainly by installing electronic controls, higher speeds and greater precision were achieved, so that the performance parameters rose by circa 30 percent. Even if such results are not everywhere achievable, it is essential for us to use all such modernization possibilities systematically.

To make sure that the replacement processes in the material-technical base strongly support the intensification of social production it is not only necessary that the projects built in the outcome of investment activity greatly show an above-average effectiveness over the basic assets functioning before but that they also, and primarily, release the efficiency potentials contained in the extant material-technical base. That is possible only through complex solutions for rationalization which combine equipment modernization with the introduction of effective technologies and forms of production and labor organization and in certain cases also the replacement of obsolete equipment. Greater importance attaches to the systematic rationalization of complex processes, of

entire enterprises and enterprise departments, the conversion and renovation of interconnected technological processes, and the gradual introduction of complex automation solutions shown to be capable of further extensions even in the project planning phase. Point-for-point renovations, technical and technological modifications--this is emphatically demonstrated by the experiences in the use of microelectronics and robot technology--do not allow us completely to exhaust the economic potentials of these technical transformations. So it is all the more necessary to install them carefully in the ongoing reproduction process so they boost the productivity of the efficiency potentials already inherent in the ongoing reproduction process. This, for example, is always done when certain bottlenecks, weak points in the reproduction process, are surmounted. But above all complex rationalization means that the interconnected processes are rationalized throughout.

Scientific-technical progress compels increasingly complex technical solutions. It causes a trend change in the character of working tools: Complex machine systems, complete installations more and more replace single machines. This trend is shown most clearly in the automation process. The strongly promoted trend of flexible automation--applicable also in the sector of medium-size and small series--causes an increasing complexity of technical solutions, i.e., the transition from single automated machines to automated production cells, integrated automated production sectors and so forth.

The most important way to improve efficiency lies in complex rationalization under all conditions--even on the lower technological levels of production. By using the procedures established for many years of complex analyses of the reproduction process, it is a matter of systematically illuminating that process and purposefully rationalizing it. Still greater advances in effectiveness can be attained, mainly, by bringing about a consistent intensification of basic assets reproduction, based primarily on including the data of scientific-technical progress in the process of renewing our material-technical base in a way that saves as many investments as possible.

5885
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ANALYSIS FINDS ECONOMIC LEADERS UNDERQUALIFIED, FACING DILEMMAS

Budapest VALOSAG in Hungarian No 10, Oct 82 pp 29-39

Article by Zoltan Tompe, marketing engineer: "The Leader's Interest"

Text Stalin said in 1933: "There is only one more thing needed for kolhoz members to become well-to-do: and that is, to do honest work in the kolhoz."¹ Today we can also meet the continuation of this idea. "Our only job is to work honestly." "This is not where we would be if everyone did his work honestly." "The problem is that we are slipshod, lazy, selfish, materialistic, etc." The constantly returning point of comedians' jokes in various forms indicates that Hungarians are not working. The common mistake of these ideas is that they attribute primary significance to conscious factors.

In the last few decades, we expected a high level of socialist consciousness from economic leaders, often in contrast with their direct economic interests. The ideology and standards of economic leadership did not change to the desired extent with the reforms and regulators. The foundations have not been laid down from the viewpoint of managerial interest relationships for the principles defined in the reforms and economic programs. The economic environment makes managerial practice contrary to the announced principles possible, and in some cases practically mandatory. I will attempt to examine the interest relationships of economic leadership from eight viewpoints.

1. Higher Education=Leadership Training?

From the viewpoint of education, Hungary's population in 1980 was:²

under 15 years of age	2,325,000
less than eighth grade	3,839,000
highest education is eighth grade	1,746,000
skilled workman certificate	959,000
secondary school graduate	1,361,000
<u>higher education graduate</u>	<u>485,000</u>
total:	10,715,000

According to the data, nearly 9 million people or 82.8 percent of Hungary's population has elementary or lower education. Of those over 15 years of age, 78 percent have lower education. Of the 3,367,000 active wage earner physical workers 60 percent, or over 2 million have no skills.

Let's examine now those only with higher education. According to the KSH /Central Statistical Office/ data, there were 485,000 of them in 1980. Of these, 319,500 persons are active wage earners. Are these nearly 320,000 persons too many or too few? It depends. If we compare them to the 4,852,000 active wage earners, then too few. In reality, however, from a certain viewpoint there is an overproduction of diplomas in Hungary. I will attempt to prove this in the following.

Expectation of assignment to leadership position

Economics University	70.7 percent
Humanities universities	66.6 percent
Technical universities	37.9 percent
Colleges	44.4 percent
People holding two diplomas	45.2 percent

(a) Diploma and Leadership. The above comparison compares the career expectations of new graduates. The ratio of those who expect leadership positions varies greatly with the type of university.

According to a study prepared for the MSZMP KB /Central Committee/, 55 percent of the higher economic leaders, 67 percent of the technical middle management, and 72.7 percent of the economic middle management have no diplomas.⁵ Of the 155,000 economic leaders, at best 50,000 have diplomas. (Detailed calculation in the Appendix/Bibliography.)⁶ Thus, of the 320,000 active diploma holders only 50,000 or 15.6 percent are in leadership positions. If we compare this 15.6 percent with the 40 to 70 percent leadership career expectation, we can see that diploma and leadership today are not yet synonymous concepts.

(b) Diploma Inflation. In the present salary structure, diploma holders in nonleadership positions can catch up to their skilled worker contemporaries by about age 40 to 45. In both the absolute and relative sense, the young diploma holder is the cheapest manpower.

For many people, the concept of intelligentsia is synonymous with the elegant, white-collar boss who works little and earns much. This picture is completely false. There are several reasons why the intelligentsia can be underpaid and why only 15.6 percent of the diploma holders are in leadership jobs. Of these, I consider the following problems important:

A significant portion of today's diploma holders obtained their diplomas mainly in the 1950's with short study and little knowledge, as a result of a political campaign. People graduating prior to 1980 at the Evening University of Marxism-Leninism can consider themselves to have higher education and are included among the 485,000 diploma holders. Students were enrolled

in the mass courses with practically a symbolic entrance exam. Each year, one subject was taught in a small number of hours during the course of the 3-year basic curriculum. Of the new diploma holders, 40-42 percent graduate from evening or correspondence courses. It is undoubtedly an advantage if the student has direct practical experience. According to most teachers, the evening student is more industrious, more persistent, more interested, and has a greater sense of responsibility and love of the profession. In spite of all these, due to the much lower number of hours, the much shorter time and less energy, and to the lower efficiency of studying in the evenings, an evening diploma is not "exchangeable" with those of the daytime students. The correspondence students, who make up 25-26 percent of all new diplomas, do not approach the average knowledge even of the evening students.

The general problems of education let their effects be felt even more in higher education, and with this they hinder the very development of the currently most important leadership intelligentsia. The problems I consider most important and will list below, greatly limit that goal of higher education of training intelligentsia from the best suited who love and understand their profession, suitable to lead the economy and society.

1. The average level of university education is lower than needed. The type of truly great professors, to whose lectures people come from other graduating classes, departments, or even from other universities, is dying out. There are many uninterested, burned-out teachers. There are many university notes assembled without conscientiousness, neglectfully, with scissors.
2. The material taught in higher education is too diversified. Practically, there are hardly any optional subjects. Most of the information is worth forgetting the day after the test.
3. On the average, the financial situation, equipment supply, condition of buildings, and level of culture of the schools is poor, in some cases (Economics University) catastrophic.
4. The social practice of endeavoring to level out the outstanding talents, also prevails in higher education. Most people understand and accept only a small amount of different thinking. A large amount of different thinking is not understandable, unnerving, and even a little scary, and therefore to be persecuted.
5. In spite of all efforts, the system of testing even now rewards quantitative and itemized knowledge rather than creative application. The most successful student strategy is to accept uncritically and reproduce mechanically the material taught. Questioning, efforts at independent thought and attempts to find intellectual individuality are not expeditious. The most successful student tactic in tests is to recite as accurately as possible the stereotypes the textbook considers most important.

6. The present system of university and college admittance favors gray mediocrity. The new measures expanding the high school graduation and /college/ admittance subjects only reinforce the tendency of favoring mediocrity, so-called multitalentedness, in contrast with the outstanding, so-called one-sidedness. We do not admit the eagle because he cannot run; we do not admit the rabbit because he cannot fly; but we do admit the chicken which can fly a little and also run a little. After this, we want chickens to fly a kilometer high, and run like lightning.

7. The inequality of the starting situation in university and college admissions is a bone that has been chewed dry, but yet it cannot be left out of this list.

Thus it is not true that Hungary's 485,000 diploma holders are the most talented, most creative members of society, and some kind of intellectual and professional elite.

I speak of overproduction of diplomas, but I do not feel that 485,000 diploma holders are too many; this number is too low. Considering the relative number of students in higher education, we are not even in the middle of the field in Europe. We have too many diploma holders of the present quality and structure. Shortage means that we have too many of what we do not need.

A significant portion of society's talented and creative members with excellent abilities have no diplomas. And many talented and creative diploma holders with excellent abilities are unable to let their abilities develop partly because of the leveling tendency and diploma inflation. The group of diploma holders is not the same as the group of the best suited people, and the professional knowledge of the diploma holders does not cover the necessary and useful volume of information, thus together with the decrease of the value of diplomas, the lack of diploma holders is increasing.

Diploma inflation levels out incomes and promotional opportunities. It makes it more difficult for really creative intellectuals to develop. It promotes the dominance of subjective factors in selecting leaders. It makes it possible to underpay intellectuals as a group. Thus it hinders our economic, social and political plans.

2. The Selection of Leaders

Issue No 2, 1974 of SZOCIOLOGIA contains the results of the study investigating the most important factors in pay raises and promotion. (The attached poll result contains separately the opinions of leaders and subordinates.)

For leaders as well as for subordinates, the superior's opinion is in first place as the most important factor. Constructivity and creativity are among the last, in 11th and 12th places, respectively. The most expeditious strategy for getting promoted becomes outlined from the poll. Let us know our job well, let us work much and possibly at the same enterprise, let us be trustworthy and faithful, and, of course, we should also insure ourselves

from the political angle, but first of all, we should have a good relationship with our superiors. Initiative ability and creativity are rather a disadvantage. The fact that the superior's opinion is the most important viewpoint in selecting leaders is actually the legalization of counterselection. Except for the honorable exceptions, even the good leader will instinctively choose people with lesser abilities than his own when he selects his own immediate coworkers, in order to preserve his leadership authority. The process of counterselection thus begun is accompanied by the gradual deterioration of leadership ability.

In certain people over a certain age, the receptivity for new things decreases, conservatism gains control, the main goal of which is "to preserve the results we have already achieved"; it is characterized by looking back proudly at the road traveled, and taking a hard stand in the interest of maintaining the status quo at all costs. Experience quickly becomes obsolete in a dynamic economy. The value of many years of experience decreases, and indeed the rigid attachment to old habits is very harmful. Of course, higher age does not necessarily mean conservativeness, but in my opinion it is a mistake to make experience and length of service one of the preconditions of selecting leaders.

The sociological poll analyzed next gathered information from workers of various cooperatives, small and large enterprises regarding advancement opportunities.⁹

The two most important conclusions that can be drawn from the numbers, are:

1. According to the general opinion of the workers (73 to 89 percent), the opportunities are limited for getting placed into a leadership position.

	<u>Cooper- ative</u>	<u>Small enterprise</u>	<u>Large enterprise</u>
No, or little opportunity (in percent)	34	40	46
Mediocre opportunity	39	45	43
Much opportunity	27	15	11

2. Advancement opportunity is significantly higher in the cooperatives than in the state enterprises, but at all three enterprise types a relatively limited group feels that the opportunity is open for being placed into a leadership position or for advancement.

The average age of subordinates is 34 years, and of the leaders, 47 years. This latter is rather high, but the main problem is rather that the scatter around the 47 years of age is small. By 1986, 20 percent of the enterprise leaders, or every fifth one of them, will retire.¹⁰ The ratio of economic leaders under 40 years of age is only 10 percent. From this follows that 70 percent of the leaders are between 40 and 50 years of age. Most of the top enterprise leaders have been in their positions for 25-30 years, since their twenties. Thus, a generation logjam has developed at the lower leadership levels. Automatic solution of the leadership problems cannot be expected with the retirement of the older leaders. Replacement of the

top-level leadership is represented by the present middle-level leadership stratum of generation logjam and counterselection. The problem of leadership is not a generation problem or diploma problem, but a problem of interest relationships, training and selection.

3. Triple Requirement

(a) Professional Training. I have already earlier referred to the study made by the MSZMP Central Committee Social Science Institute requested by the MSZMP Central Committee's Canvassing and Propaganda Committee, about the class and strata structure of today's Hungarian society. I am quoting from this:¹¹ "...the members of this body are selected for the pinnacles of power...primarily not according to professional, but rather by political principles and criteria." And later: "Violating the principle of professional knowledge may cause functional problems." The low ratio of diploma-holding leaders also proves the violation of the principle of professional knowledge.

(b) Leadership Ability, and Human Factors. Leadership ability, suitability, and human factors cannot be proven by papers, in contrast with political and professional training. Even though there are now excellent test assignments and situation exercises, nevertheless their results do not count as official evaluation. Evaluation of leadership ability, born talent and human suitability depend on the immediate superior.

(c) Political Suitability. At first glance, we could say that this requirement is completely fulfilled. The leadership positions are assigned with the concurrence of the appropriate party organization, often on the party organization's recommendation. The parameters of selecting leaders, which can be measured precisely, are a politically active past, party membership, party functions, party assignments, other political work, and participation in some type of organized political training. But, in my opinion, these are not the only indicators of political suitability. To put it better, these are not the primary ones.

Complete political loyalty voiced in broad circles often covers up for practice contrary to national economic interests. Political demagogery is a frequent way of justifying an erroneous decision. The "politician"-type leader bases his decisions not on the logic of the job, not on professional viewpoints, but "measures with a political measure," and gives political color to his often capricious, voluntaristic ideas. He works not with a task-oriented, but rather with a person-oriented method. This means that instead of evaluating the suggestion, he evaluates the person making it. The "politician"-type leader always has broad connections.

If a leader does not meet the first two requirements, then he is also unsuitable to lead from the political viewpoint even if he meets the political criteria listed earlier. The content of political suitability has changed. The question of power has been decided. Forcing class aliens out of power is no longer on today's agenda. In the extensive stage of economic growth, the most important political task is high quality, creative and successful leadership activity handled on the basis of professional knowledge and leadership suitability. Errors committed even by the most loyal leader cause political damage.

4. Complex Leadership Evaluation

Measuring individual performances in leadership assignments is a very difficult thing to do. The superior makes his decisions on the basis of several viewpoints and guide principles, but in the final analysis completely subjectively; this is what we call complex leadership evaluation.

The leader's direct existential interest is to preserve his status or possibly to move into a higher position. If someone loses his leadership assignment, he is a fallen man, his standard of living and social rank plummet significantly, therefore the preservation of status is practically an interest of existence.

For the leader, the most important thing is the evaluation by the higher leadership level, or by the top authority. Even total failure of the given economic unit, or its losses do not mean replacement of the leader, if the higher level's opinion is favorable. The reverse is also true: even if the economic unit prospers it does not guarantee that the leader will keep his position if his contacts with the top authority are poor.

The most expeditious strategy for the leader is to secure the satisfaction of the higher levels. From this it follows that the direct goal of heading an enterprise is not achieving the optimum economic result but maintaining and increasing the level of the top authority's satisfaction. Undoubtedly there is a correlation between these two factors, that is, evaluation of the leaders of a prospering enterprise is generally favorable, but this correlation is not +1, that is, the relationship is not necessarily linear in all cases.

The top authority obviously prefers a leader who precisely follows his directions and guide principles. A leader with such an attitude also requires his subordinates to follow directives exactly. Thus, the following characterize the various levels of leadership:

Decisions are made only at the higher leadership levels. Middle managers expect the higher level's decision even in the most minor issues. And the highest level at the enterprise expects approval from the top authority for all of the more significant decisions. The main viewpoint of evaluation in making a decision is, what will be the opinion of the main authority.

Performance beyond fulfilling the plan cannot be expected from the leader, since he alone bears all the responsibility associated with it. This risk is completely senseless to him, he can only lose by it. Status cannot be jeopardized by precisely carrying out directives, by fulfilling the plan.

The fear of independent decisionmaking and its responsibility leads to a compulsion for constant documentation. The leader who is a mechanical executor of higher directives often does not see clearly the sense and consequences of his actions. But, on the basis of being on the safe side, he puts all the directives, requests and information he receives into storage. He requests that information received over the telephone or verbally, be verified in writing. No one has ever suffered any ill effects

from excessive writtenness, or from the avalanche of documents nobody ever reads. The need to document everything involves an overestimation of one's own work. The bureaucrat-type leader considers his work, his position very important. Thus the many documents are a manifestation of fear of responsibility and of the obsession of importance.

More and more management levels and management positions are created within the enterprise. The increase in the number of leadership positions is not in any kind of relationship with the needs created by economic activity, only the following two subjective factors affect it. One: the size of the leader's income, his social status, the personal weight and power he yields, are influenced primarily by the number of subordinates he has and only secondarily by the success of the economic operation. The leader's respect, power and even salary increase. The greater number of managerial levels, even if unnecessary, is not accompanied by any kind of demonstrable disadvantage from the enterprise leader's point of view. The other subjective factor which increases the number of leadership levels is satisfaction of promotional needs. A frequent tool of satisfying proven, faithful subordinates is to appoint them into nominal leadership positions.

Since the decisions are usually made two or three levels higher than necessary, the leadership levels in between are actually executing levels deprived of their decisionmaking functions; that is, links in the chain between the decision and the action. The main function of these leadership levels is simply to forward information from the top downward, and in the original sense of the word no leading of any kind is being done here.

The individual leadership positions are precisely defined. Status, authority, sub- and superordination, sanctions, salary, and bonuses are all completely fixed. The hierarchic system is built up with absolute precision and logic from within, and is completely understandable. The whole is perfect just the way it exists. The outside world, the market, production, the environment, are all but disturbing factors which endanger the harmonic order of this hierarchy.

The job of middle leaders is forwarding information, and this does not require professional knowledge. The authority ensures continuous forwarding of information from the top downward. The weight of a person's opinion is determined by the place he occupies in the organization and not by his professional knowledge. Professional knowledge as a decisionmaking factor would introduce disturbing elements into the system which are foreign and outsiders to the inner self-governing laws of the hierarchic system, and this would undermine the structure based on authority and respect.

In the interest of preserving his position, the leader filters the information that moves upward. He holds back or applies cosmetics to any information he considers potentially dangerous. Thus, the higher the position a leader occupies, the more favorable the picture he sees.

5. Financial interest

The leader's primary interest is to preserve his status, therefore the most important thing to him is the complex leadership evaluation. Financial interest follows immediately after this; let us see what kind of interest relationships this creates.

Do leaders earn much in Hungary? Whether we answer yes or no to this question, we open the gate to a flood of opposing justification. Both statements can be contradicted. Let's also look at a sociological poll on this topic.

The question of how much they would pay to workers in various assignments and with various performances, was answered by 715 workers of nine machine industry enterprises.¹² Due to the change in the forint's value, the percentage comparison says more than the specific sum. Therefore I have converted the original sums to percentages.

Earnings ratios workers in intellectual jobs consider fair, in terms of percentage of the average journeyman's pay:

	<u>in percent</u>
Average journeyman	100
Journeyman with above-average performance	140
Middle level leader without initiative	135
Successful middle level leader	227
Development engineer without initiative	180
Successful development engineer	272
Director without initiative	326
Enterprise director who has achieved serious results	500

These same data, based on the opinion of physical workers:

	<u>in percent</u>
Average journeyman	100
Journeyman with above average performance	126
Middle level leader without initiative	137
Successful middle level leader	162
Development engineer without initiative	167
Successful development engineer	231
Director without initiative	224
Enterprise director who has achieved serious results	291

Even the way the question is posed, reflects a poor approach. Nowadays, answers given to the question of "How much would you pay to a director, development engineer, or middle level leader who have no initiatives?" suggest performance differentiation which is in style today. But this does not represent a solution to the problem of poor leadership performance. The poor leader should not be paid less, but rather he should be prevented from filling a leadership position. In spite of this, the poll contains some

interesting information. Let us compare the sense of fairness of the workers with reality. According to the 1980 data of the KSH the leaders receive 170 to 230 percent of the average pay of subordinates.¹³ There is a big difference compared to the 291-500 percent considered fair. Thus the successful and creative top level leader is underpaid according to society's sense of fairness.

The main viewpoint for differentiating among enterprises is the size of the enterprise. In Hungary, size of enterprise means number of employees. We say that this enterprise employs 20,000 people, and that one only 2,000. We consider the first one 10 times bigger, even though we know nothing yet about their profiles, production values, sales, or equipment inventories.

Leadership differentiation within the enterprises is also small. Its main viewpoints are the following: 1) place occupied in the hierarchy-pyramid; 2) age; 3) continuous length of service at the given place of work. These are the parameters that can be measured with the highest accuracy. It is a very rare case for significant differentiation to occur beyond these.

The income differences between leaders and workers are significant not primarily in the area of fixed monthly incomes. With respect to bonuses and awards, the differences of 2 or 3 times the average monthly pay may run up to 8 to 20 times that for an enterprise which fulfills the plan.

From the viewpoint of income, the lower leadership assignments pay the most. At the lower leadership levels the need to make decisions and accept responsibility are small. Merely because of his status, the bureaucrat-type leader who mechanically forwards information and executes, automatically enjoys a standard of living several times exceeding the average. The leader who accepts the decisionmaking, the risk, and the responsibility, can at best earn 20-50 percent more. Obviously, for this amount of extra money it is not worth it.

The excessive burden on leaders, and their endangered health are often mentioned reasons. Some people even go as far as calling heart attack a management disease. In Great Britain, 35,000 workers of the British electrical industry were subjected to systematic monitoring tests for 3 years.¹⁴ The average age of the workers was 35 years; one-third of them, or more than 10,000 people, were found to be in danger. This ratio for leaders of the same average age is 16 percent. Nearly 30 percent of the leaders, but only 20 percent of the workers, are in the "low risk" category.

	Level of endangerment (percentage)		
	<u>low</u>	<u>medium</u>	<u>high</u>
workers	20	47	33
leaders	30	54	16

I know of no similar study in Hungary. Various circulatory problems amounted to 48.5 percent of the reasons for death in this country in 1980.¹⁵ This means that the death of nearly every second person was caused by heart attack, stroke, high blood pressure, or other circulatory irregularity. Thus what is involved here is an illness of the masses, rather than endangerment of leaders.

After all this background, we can attempt to answer the question of whether leaders earn much in Hungary. If I look at the average income and average performance of all economic leaders, I will say very much. Looking at the income of truly creative leaders, then it is very little.

6. Economic Regulation¹⁶

In examining the interest relationships of economic leadership, we have arrived at one of the most important factors. Even if the selection of leaders, the triple requirement, complex leadership evaluation, and the financial interests function without a flaw, inadequate leadership practice may develop if the interest relationships created by economic regulation promote it.

Symptomatic treatment of problems taken by themselves is characteristic for our entire economic management. We are defending against manpower shortage by manpower management, against overheated investments with limiting investments, against the foreign-trade deficit by limiting imports, etc. I will examine here the practice and interest relationships of enterprise management only from two viewpoints, in the reflection of economic regulation.

(a) Planning Activity. The current practice of preparing plans is as follows: Conform to the expectations. The basis of plan preparation is not the actual possibility but the expectations of higher levels. Thus, the basis of information for preparing the plans is also primarily the intentions and ideas of the top authority.

Plan bargaining. The plan is a subject of bargaining. The plan's preparer prognosticates the expectations of the top levels, and correspondingly leaves a certain bargaining reserve in his plan proposal. Based on several decades of experience, the top authority expects this bargaining reserve and tries to hike the plan numbers by a few percentage points. The enterprise produces an artificial show of desperation, tries to prove the unreality of the expectation and, in exchange for modifying the plan, it asks for various types of assistance and favored treatment. Thus, the enterprise does not know its own possibilities.

Modern planning methods. There is an ever-increasing volume of literature on various plan preparation methods. The practice of plan preparation by the enterprises rarely uses these methods. Indeed, the individual workers in leadership assignments charged with plan preparation are not familiar with even the most fundamental optimizing calculation methods and have not even heard of the most modern supplementary techniques.

Plan variables. Theory considers decision preparation with several variables to be the best. But in reality the enterprises are not preparing several plan variations. It is not in their interest to prepare several variations. They consider the plan to be an unpleasant task to be sent in to the top authority, and thus they accept the first plan proposal that meets certain minimum conditions.

Basic principle, interest in an increase. An attitude aimed at the past rather than at the future prevails in planning and in the evaluation of plans. In planning, the goal is not optimum utilization of resources and maximizing results, but to achieve a certain percentage improvement over the previous time period, to improve the result.

Underplanning. During the first years of the 5-year plan period, the enterprise is interested in reserving ample capacities and performance reserves, thus a tendency of improvement can be ensured well in advance.

(b) The New Producer Price System of 1980. I will attempt to evaluate the new regulators here now only from the viewpoint of the interest relationships of the leaders. In my opinion, the new producer price system caused no changes from my topic's viewpoint. The interest relationships of economic leaders continue to differ from central goals and from declared principles.

Regulators and the market. The regulators did not create a real market. Merely a market simulation is involved. The regulators try to create a situation for the enterprises to feel as if they were operating on a really open market. Our current prices are not competitive prices but administrative or monopoly prices that simulate competitive prices. The enterprises are also merely simulating competitive production on the simulated markets. The situation can be characterized with the following.

Before a military exercise the general has a sign affixed to a bridge: "This bridge has been blown up!" it reads. During the exercise they are dumbfounded to see that a platoon of soldiers are happily walking across the bridge, paying no attention to the sign. But when they take a closer look at the soldiers with binoculars they see that one of them is carrying a large sign which reads: "We are swimming."

The system of reporting. The system of reporting and holding one accountable has been preserved. The effects of force are felt not from the market's direction but from the direction of the regulators. One must conform not to the market but to the regulators, to the central decisions. Sometimes, in a fortunate case, the two may coincide, but are not necessarily the same. Our domestic market continues to remain a sellers' market¹⁷ and our economy continues to be an absorbing economy described by Janos Kornai.¹⁷ Central reporting inherently presumes an economy of suction.

Economic clear-sightedness. In the present pricing system the calculation of enterprises are completely separated from their expenditures. A favorable forint/dollar yield must at all costs be shown for products to be exported. Due to the need to cloud and manipulate things, even the enterprise itself no longer knows accurately its realistic costs.

Prices based on information. World market price is one of the key factors of the new producer price system. We say that due to our economic openness we must increasingly conform to the world market price ratios--but we add that the world market price must be cleansed of the business cycle's upswing effects resulting from the anarchy of the capitalist world's economy and from monopolistic manipulations. Thus the world market price for us is an

informative factor, we determine it on the basis of our information. There are at least four or five possible interpretations of the general concept of world market price. And the explanation possibilities in the various speciality areas are practically limitless. A practiced expert can take the top authority into the "deep woods" with ease. He would be acting against the interests of his own pocket if he did not do so.

Structure modification. Even the new producer price system does not create a sufficiently strong force to change the structure, modernize the product structure, or to raise the technological standards. The main path for increasing the enterprise's income is smooth growth year after year. Thorough reorganization and change of structure would necessarily cause a temporary decline of results, and this is immediately followed by a decline in spendable wages and derogatory evaluation. All this makes real and thorough changes too risky.

Monopolistic situation, market competition. In spite of all well-intentioned efforts to make enterprises compete, the monopoly situation of enterprises continues to remain. The monopoly situation of a socialist enterprise derives from decisions outside the economy, not from the market conditions. Therefore in this country it is not possible to eliminate a monopoly situation by merely causing competition on the market. The monopoly situation of the overwhelming majority of enterprises is firm and will remain so.

There are two main reasons for this:

1. The ratio of Hungarian enterprises employing over 1,000 persons is unjustifiably high (73 percent). Concentration is higher than this only in Rumania (80 percent) and in Czechoslovakia (90 percent). It is 17-41 percent in the most developed capitalist countries. These large enterprises can influence not only the market but also the authorities and the regulatory system in their own favor.
2. In Hungary, 70-75 percent of society's net income is spent on centralization. Most of the noncentralized portion of the net income can also be spent on centrally determined goals. Thus the effect of the merchandise and monetary conditions in the Hungarian economy is strongly limited. It is obvious that the effectiveness of regulations aimed in the direction of merchandise and monetary conditions can only be strongly limited, too.

Regulator modifications. The last decade's frequent regulator modifications represented a significant uncertainty factor in the domestic and foreign relationships of enterprises. All this favored managerial careful passivity. Leaders who have seen many regulators are right in saying that they see the secret of long managerial life in careful passivity. Reacting too quickly to the new regulations is not worth it. Well, the 1980 regulators already have a 1981 modification, too.

The listed contradictions of the regulatory system value too highly the leaders who have old experience, mechanical knowledge and old habits. Thus, the relationship between the regulatory system and the interest conditions of the leaders consists of reinforcing poorly interpreted practical know-how, experience and certain forms of leadership practices that are contrary to the national economic interest.

7. Leadership Styles.

The above-outlined interest relationships favor the four leadership styles listed below. In what follows, it is not my desire to characterize today's Hungarian leaders; what I am undertaking is merely to list the most important negative style characteristics deriving from the interest relationships, following the example of the demonstrative "sick horse" of veterinarians.

Execution-centered leadership style. Creativity and decisionmaking ability are suppressed. Considers execution of the higher level's directives his basic duty. Looks warily at the creativity of his subordinates and at initiatives coming from below. Lacks independence and tolerates no independence from his subordinates, either.

Pragmatism. His main goal is self-preservation, survival. Characterized by superficial, outwardly and smooth conformance to the new situation. Has no concepts. Changes his opinion, friends and allies to suit the situation.

Conservativism. In professional debates also, he refers to his past, his experience and his achievements. Derives his leadership activity not from opportunities but from results achieved in the past. Insists on his own "well-proven" methods. His main goal is to preserve the results achieved in the past.

Excessive centralism. Tries to concentrate all threads in one hand. Does not build an effective professional directing apparatus. Keeps the decisionmaking opportunities of middle level leaders at a low level, thus the indecisive cadres, unable to make decisions in the second line of leadership, represent no competition for him. He alone makes decisions on all important questions. He sees the reason for errors resulting from excessive centralization in insufficient centralization, and further strengthens centralization.

8. In Conclusion

The general level of satisfaction, sense of well-being, and mood of the leaders is worth examining. The study of Elemer Hankiss made in 1978 examined the system of values of a few strata of industrial workers.¹⁸ Most of the subjective indices the industrial technical leadership stratum formed about itself is more positive than that of the other strata. Let us compare the average levels of satisfaction of leaders and of journeymen on a scale of five.

	<u>technical leaders</u>	<u>journeymen</u>
financial level	3.9	3.3
mobility	3.9	3.2
career development	4.4	3.6
future	3.8	3.0
level of success	4.1	3.3
freedom from conflicts	4.1	3.0
freedom from injury	3.9	2.5
sense of security	4.1	3.2

Thus, industrial technical leaders are much more satisfied, more optimistic, and their conflicts and injuries are much smaller. The average number of points given by leaders is lower in only two areas. One: the sense of fairness, sensitivity to unfairness (leaders: 2.3, journeymen: 2.8). The other: their need for personal integrity and autonomy (leaders: 2.2, journeymen: 3.1). The sense of fairness and need for independence of the leaders participating in the study is weaker than those of the workers. The above numbers are for industrial technical leaders, but my practical experience convinces me that they are also characteristic of other strata of leaders.

Someone might say that the analysis developed above is too pessimistic, and that reality is not quite so gloomy. We do have several excellent top-level enterprise leaders who creatively apply the new methods and who hold up well in any kind of international comparison. But their selection and their activity are not well founded from the interest viewpoint. They often act contrary to their own interests, their main guide being their conscience. They are those certain exceptions who prove the rule. The very fact that we can specifically identify them, that we can say that X, Y, and Z are creative leaders, and the very fact that they tower above the others as exceptions, is the very proof of how strong the rule (the contrast between economic goals and the interest relationships of the leaders) is.

Janos Kornai writes the following, analyzing the shortage, the stubborn phenomenon which follows the socialist economy: "...certain social conditions and given institutional circumstances give birth to certain forms of behavior, economic rules, and standards. These cannot be ruled out of effect by the state's decisions. It was not a governmental decision or national plan that decreed that there should be tension in investments, a chronic manpower shortage, a tendency which drives prices upward, and so on--and no government decision or national plan can eliminate these as long as those circumstances which constantly regenerate these phenomena continue to exist."¹⁹

The incantation-like desire that the economic leader should have greater conscience is not enough. Fulfillment of the economic, political and moral requirements placed on the leaders is prevented by the "certain social conditions and given institutional circumstances." Unfortunately, to "do honest work in the kolhoz" is not enough for "kolhoz members to become well-to-do."

FOOTNOTES

1. I. V. Stalin: Questions on Leninism. Foreign Language Literary Publishers, Moscow, 1945, p 435.
2. Assemblage based on the STATISZTIKAI EVKONYV /Statistical Year Book/ 1980.
3. I calculated this on the basis of the STATISZTIKAI EVKONYV 1980.
4. Sociological study of the circumstances and efficiency of creative work. KGM MTI /Ministry of Metallurgical and Machine Industries, Technological Scientific Information Institute/, 1971.
5. The May 1980 issue of TARSADALMI SZEMLE publishes excerpts from the study prepared under the coordination of the MSZMP Central Committee's Social Sciences Institute on the request of the MSZMP Central Committee's Canvassing and Propaganda Committee, entitled: "The Class and Strata Structure of Today's Hungarian Society."
6. According to the data in the KSH publication entitled ELETSZINVONAL /Standard of Living/ 1976-1980, the number of nonphysical workers in Hungary is 1,488,000. The ratio of leaders from this is: category A leader, 1.9%; category B leader, 2.8%; category C leader, 5.7%.

From this and from the material of the MSZMP Central Committee's investigation in the previous point, I calculated the data for the following table:

Category A leaders	28,300 persons, of this 12,700 top level;
Category B leaders	41,700 persons, of this 13,800 top level;
Category C leaders	84,800 persons, of this 23,100 top level;
Total leaders	154,800 persons, of this 49,600 top level.

7. The ELETSZINVONAL 1976-1980 provides a comparison for Europe on what percentage of the 20-24 age group is studying in institutions of higher learning.

	<u>percentage</u>		<u>percentage</u>
1. Denmark	30	11. Austria	21
2. Sweden	30	12. Bulgaria	21
3. Netherlands	29	13. Yugoslavia	21
4. GDR	29	14. Soviet Union	21
5. Italy	28	15. Finland	20
6. FRG	25	16. Great Britain	19
7. France	24	17. Greece	18
8. Norway	24	18. Poland	18
9. Belgium	23	19. Czechoslovakia	15
10. Spain	22	20. Portugal	14
		21. Hungary	12

8. SZOCIOLOGIA No 2, 1974 pp 169-191. The factors of pay raise and promotion are:

In the opinion of leaders:

1. The superior's opinion
2. Good knowledge of the profession
3. Reliability
4. Quality of work
5. Quantity of work
6. Faithfulness
7. Initiative
8. Political recommendation
9. The way of treating people
10. Time in service at the enterprise
11. Creativity
12. Friendship connections
13. Belonging to an influential group
14. Elbowing

In the opinion of subordinates:

1. The superior's opinion
2. Good knowledge of the profession
3. Quantity of work
4. Time in service at the enterprise
5. Reliability
6. Political recommendation
7. Faithfulness
8. Quality of work
9. Friendship connections
10. Initiative
11. The way of treating people
12. Creativity
13. Belonging to an influential group
14. Elbowing

9. Sociological problems of Leadership at the Place of Work. Kossuth /Publishers/, 1977 p 85.

10. HETI VILAGGAZDASAG 4 Apr 1981.

11. The Class and Strata Structure of Today's Hungarian Society. TARSADALMI SZEMLE, May 1980.

12. Sociological study of the circumstances and efficiency of creative work. KGM MTTI, 1971. / see 4. above/.

13. ELETZINVONAL 1976-1980, KSH.

	percentage
Average earnings:	leader A 8,832 Ft., 229.3
	leader B 7,965 Ft., 206.8
	leader C 6,482 Ft., 168.3

Average income of subordinates = 100 percent

14. "Healthier Than They Think," FINANCIAL TIMES 9 Jun 1980.
15. STATISZTIKAI EVKONYV 1980. KSH
16. To write the entire point 6, I used the GAZDASAGI SZABALYOK /Economic Regulators/ 1980., KJK /Publishers of Economic and Legal Literature/, Budapest, 1980.
17. Janos Kornai: "The Shortage." KJK, 1980.
18. Elemer Hankiss: "Experiment in the Sociology of Value." Office of Popular Educational Propaganda, 1978.
19. Janos Kornai: "The Shortage." KJK, 1980 p 583.

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ROBERT HOCH'S POSITION ON REFORM'S FUTURE

Budapest HETI VILAGGAZDASAG in Hungarian 9 Oct 82 pp 26-27

[Article by Robert Hoch, member of the MSZMP Central Committee's Economic Work-
in Group, in the "Debate on the Economy" column: "Protection of Our Achieve-
ments or Further Development?"]

[Text] I basically agree with the concept that Marton Tardos expounded in his article "What Should We Do to Protect Our Achievements?" in last week's issue of HETI VILAGGAZDASAG. In other words, I too profess: that comprehensive changes are necessary in our system of economic management and economic activity; that a key element of these changes must be the conceptual further development of our system of enterprise management; that we must proceed along the path that the Central Committee blazed in its 1966 resolution; that one of the main causes of our present problems is that we have come to a standstill along this path and in many respects have even turned back; and that without definite further progress we would be unable to protect even our achievements to date.

Although Tardos, with an author's obligatory sense of responsibility, emphasizes that he is presenting his personal views, we may nevertheless risk the conclusion that the overwhelming majority of economists, at least the ones who present their views in more or less systematized form, are essentially in agreement with the above line of reasoning. However, there is debate on very important partial questions and on emphasis. I myself do not wish to dispute Tardos, merely to round out some of his ideas. But these are specifically the interrelations about which we cannot contend by any means that there is complete consensus on them among economists.

I will begin by saying that even the continuation of the 1968 reform is not something self-evident, although we do claim that it is necessary. It is obvious that we cannot continue where we left off, say, in 1972. Conditions have changed since the reform's elaboration, particularly the conditions of the world economy and of world politics. The saying that one cannot step twice into the very same stream applies also here. Specifically the unfavorable changes in the world can serve, and are serving, as the basis of arguments that we must recentralize under the changed conditions, as well as of arguments that the 1968 concept satisfied the requirement of gradual structural change but is unsuitable to serve as the basis of a mechanism that ensures rapid structural changes. Space limitations do not permit me to refute these arguments. But

the fact remains that steps toward a command-directed economy have not improved our economic situation. It is of course indisputable that the changed conditions and circumstances must be taken extensively into consideration in the course of the economic reform's further development.

Another reason why we must not continue the economic reform in its original form is that a number of theoretical questions closely related to the economic reform's concept were not clarified then and have not been clarified since: we either did not even raise these questions or we have answered them incorrectly. This lack of clarification is the source of exceptionally serious confusion and discredits the reform itself. We will mention only a few of these theoretical questions.

We did not think through--and there were of course reasons for not doing so--what system of institutions was required for the changed methods of economic management and economic activity. Yet an unchanged system of institutions could in itself make the reformed economic mechanism ineffective. A system of institutions for our economy is now a research topic of special importance.

A key to this topic is the definition of an enterprise, especially of a state enterprise. First of all I would like to emphasize the extreme importance of a problem that Marton Tardos mentions only briefly in his article: the manner of managing state-owned property and of exercising the state's rights as owner, the possible separation of the functions of ownership from the functions of state administration (from the functions of state power and of managing the economy, I might add). Very probably this will be the decisive link in the further development of enterprise management. In view of this, I find it very disturbing that we have barely reached the point of raising this question.

A subquestion of defining the enterprise is the definition of profit. This is again a question we have not answered so far. What exists today is a hybrid of gross incentive (total personal earnings of an enterprise's collective plus development fund) and net profit (profit-sharing fund plus development fund). This is not necessarily bad and can even be a virtue. But let us not pretend that incentive is one or the other, and especially not that both are incentives, as if simultaneously. The lack of clarification is again a source of confusion, especially in view of the fact that the profit incentive is regarded, almost axiomatically, as the main criterion of an enterprise's operation. Tardos, correctly, speaks of a long-term profit incentive. To this day we are employing an annual profit incentive and, moreover, it is combined with the base-period approach. It should have been clear at the very beginning that an annual profit incentive would encourage wasteful management of resources, for short-term results. But what is long-term profit? The sum of the profits over a period of several years? Hardly that. We would not be making much progress if we were to replace the annual profit incentive with, say, the total profit over a period of five years (or with the annual average profit).

Long-term profit cannot be expressed exclusively, or even primarily, in market categories. With some simplification, long-term profit is essentially successful enterprise strategy. This should be the basis of the enterprise's incentive, and especially of the incentive of its managers. Managers must be held responsible for their enterprise strategy, and it must be made the criterion for rating managers.

Furthermore, the objective of establishing the optimal division of labor between economic policy and economic planning on the one hand, and a controlled market on the other, was perhaps the cornerstone of the 1968 economic reform. We cannot claim to have clarified the problems involved. (And we are even less able to claim that we have approximated this optimum.) When we say, with reason, that the enterprise sphere, its independence, "nature," incentives, etc. must be changed significantly, then we are also saying that we wish to change significantly the state's economy-organizing and managing role. But this answer cannot consist of "let the state withdraw from the economy" or "let the state show self-restraint." The question that we actually must answer in practice within a short time is this: with what should the state concern itself in the economy, and in what it should not be involved.

This practical answer must be very specific, not only in telling the central agencies to cease their detailed day-to-day management of the economy, but also in ensuring that, for example, on the basis of long-range planning there will be a realistic economic strategy to ensure society's progress, together with a system of suitable objectives and instruments, including a long-range concept of the economic mechanism's development. We wish to make economic management and the planned economy more effective. A necessary but not a sufficient condition for this is that the state concern itself with fewer things. And it is even more important that the state concern itself with things that in many respects are other than what the state has been concerned with up to now, and that it devote more attention to things that it has been neglecting up to now.

We seem to have forgotten the very important basic principle of the 1968 economic reform that decisions must be made at the level that offers the best overview of the given problem. It is noteworthy that long-range economic planning started and flourished in the offensive phase of the economic mechanism's reform, but it too slumped during the preceding defensive phase. It is encouraging that long-range planning has again become "fashionable" in recent years, simultaneously with the realization that economic reform must continue.

Speaking more generally, it would be naive to assume that we could achieve significant results solely by perfecting the market mechanism, no matter how radically. Or that the market mechanism could be perfected at all, without meaningful progress in economic policy and national economic planning. Economic policy, planning, the economic mechanism, regulation, and the system of institutions constitute an integral whole, and none of its elements can be developed significantly without developing the others as well. During the years after 1968, economic policy and the economic mechanism changed in the same direction in many respects, although in principle they were not coordinated. Tardos justifiably points out the important role that the economic reform has played in the rapid rise of the population's living standard. But at that time we were implementing a very purposeful policy on the living standard. Without this policy, the economic mechanism's reform would not have achieved these results in raising the living standard and in altering its structure. And conversely, of course, the economic reform was one of the basic conditions and instruments for the realization of the policy on the standard of living. And to the extent that economic policy remained essentially unchanged (for example, the cyclical nature of investment policy), it was an obstacle to the unfolding of the economic mechanism's reform.

These interrelations of economic policy and of the economic mechanism are valid also today. Should economic policy fail to determine within a relatively short

time and on the basis of long-range planning, for example, the priorities for the development of extractive industry, manufacturing, agriculture and the infrastructure, the available limited resources could be tied down in extractive industry, in which case--due to the absence of resources--no economic mechanism could function effectively in manufacturing and agriculture. Moreover, the infrastructure likewise could not be developed, although its development is one of the basic conditions for intensive economic development. And yet the economic mechanism's reform was intended from the very beginning to enhance intensive economic development. And if extractive industry's top priority were the basis of our economic strategy, we would need a substantially different economic mechanism than the one the 1968 reform aimed for.

Since the mentioned five elements are different aspects of the system of economic management, they really are inseparable. For example, the economic mechanism and the system of regulation, which specifies the former, depend to a large extent on the concept of external economic policy. If we advocate export-oriented production (Tardos, too, advocates that the economy concentrate on export, respectively on import substitution), if we foster the illusion that our industry can be made capable within a relatively short time (or at all) to launch an export offensive along its entire front on the nonruble-denominated markets, then this has serious implications for our concept of the economic mechanism.

If the essence of our concept of the economic mechanism is not orientation on the market and sales--in other words, if we do not create conditions that make it essential for the economic units to obtain the customer's money, regardless of whether he is paying in forints or in dollars or rubles, and the system of regulation "merely" steers toward the nonruble-denominated markets, by providing more incentive--then we will be trying to create some sort of distorted dual economic system. But such efforts are doomed to fail from the very outset, and it is of course impossible to achieve even correctly interpreted export-orientation.

And last but not least, in the title of his article as well as in its text Marton Tardos speaks of what we must do to protect our achievements. It is entirely justifiable to raise this question for the short term. Because--and I repeat my concurrence--within a short period of time we must introduce substantial changes if we do not want to fall from the level we have already attained. Tardos, however, outlines a long-term program that must be started without delay.

It is likewise indisputable that changes cannot produce spectacular results within a short time, and they might even require sacrifices. But we may recommend only a strategy that will ensure, or at least holds promise of ensuring, our further progress, a further rise of the living standard, if not immediately then at least in the foreseeable future. The necessary changes, some aspects of which Tardos outlines (and which I have attempted to round out), make it probable, but only probable, that we not only can preserve what we have already achieved--this cannot be regarded a sufficient long-term objective--but can also continue our development, which has been arrested.

STATE FARMS TO BE PERMITTED WIDER RANGE OF ACTIVITY

Budapest FIGYELO in Hungarian 25 Nov 82 p 11

[Article by staff reporter Peter Bonyhadi in the "State Farms" column: "New Role With Old Actors"]

[Text] The improvement of effectiveness does not depend on the large-scale farms alone. The prices and availability of industrial materials, machinery and equipment also influence international competitiveness. But the managers of large-scale farms also want to know how to interpret international competitiveness and what yardstick to use for measuring it.

Peculiar Situation

Production on state farms differs from the national proportions. These farms keep much more livestock than the national livestock density, and also the proportion of their large-scale vineyards and orchards is higher than the national average or the average for the cooperative farms. But the proportion of crop production on state farms is lower even if we add to it their other principal activity, also known as ancillary farming activity, which includes a part of crop production. (If we take the structure of farm production in a narrower sense, we find that the state farms show a certain similarity with the production structure of the small-scale farms, rather than of the cooperative farms.)

Today one-half of the state farms are specializing in livestock production. The livestock population per state farm is so large and ties down so much capital that it is hardly possible to alter the livestock population and hence to significantly change the production structure. And the processing industry developed on the basis of the large-scale plantations is such that the proportion of these plantations must be maintained.

Since the state farms are unable to significantly alter the structure of their farm production, they have been expanding instead the range of their activity. In 1970 the proportion of ancillary industrial activity within the state farms' total activity was only 18 percent, as compared with 24 percent on cooperative farms. But ten years later this proportion rose to 28 percent, the same as in the cooperative sector. During the same period the proportion of other principal activity, which includes a part of crop production, rose from 2 to 15 percent, while in the agricultural cooperatives it dropped from 3 to 6.3 percent [sic].

Another difference lies in that the food industry accounts for a decisive (more than 50-percent) share of the state farms' activity other than their principal activity--there is no better expression for it--and also the rest of this other activity is mostly related in some way to farm production (the manufacturing of barn equipment, farm machinery, parts, etc.).

The well-known economic objective in conjunction with the production structure is that agriculture should produce everything that can be produced domestically. And it should do so while keeping its production profitable, effective and economical.

Not All Farm Work Can Be Mechanized

Due to the present level of mechanization and technology, to the characteristics of some plant varieties, and to the absence of suitable implements and to the manpower shortage, not all crops can be grown on large-scale farms, or at least not economically. Nor is it possible to devise a system of regulation that could ensure commensurate profitability in every branch of farm production under all kinds of weather and at the differences in capital- and labor-intensity. Thus there is a significant contradiction between the requirement to grow everything, and the requirement to do so effectively and economically.

To resolve this contradiction, a number of new possibilities and methods have been introduced in statutory provisions whose purpose is to make the entrepreneurial and maneuvering opportunities of the large-scale farms more flexible. For example: large-scale farms are able to employ their own workers also in second jobs on a part time basis; there are wider possibilities for sharecropping; as household plots the state farms are now able to allot to their workers also vineyards and orchards, not only plowland; the state farms are now able to directly establish specialized cooperative groups, small companies and subsidiaries, etc. The new possibilities can resolve, partially or completely, the problems of many branches of farming where the manpower requirement is above average and where human labor and skills cannot be replaced with machinery.

Through the more efficient organization of these relations and possibilities, the large-scale farms will be able to reduce their demand for casual labor during harvesting, and also to broaden their otherwise limited investment opportunities. But most important of all, through the special cooperative groups it will be possible to include in large-scale production also the capital of small-scale farmers.

By taking advantage of these possibilities, the large-scale farms will be able to solve by other than large-scale methods and means, partially or entirely, those branches of their production that are not sufficiently profitable. Thereby also the set of instruments within the system of regulation will become wider, alleviating the contradiction between the evolved production structure and the requirements of effectiveness.

Large-Scale Farms Have More Say

International competitiveness also demands that the large-scale farms be more involved in foreign-trade activity and that they be exposed more directly to the effects of foreign markets. For the time being, admittedly, organizational

solutions under which the right to make decisions is exercised not by the director of the foreign-trade enterprise, but by a board on which the large-scale farms are represented, have been adopted only for farm products of smaller volume (seeds, wine, nonalcoholic beverages, fish, cane, slaughter sheep, and winter apples).

Already about 30 state farms are now watching closely the foreign-exchange rates. It is not indifferent to them whether the foreign-trade bureau concludes a contract in dollars or deutschmarks, whether it takes out insurance against exchange-rate fluctuations, and whether 16 or 17 metric tons can be loaded on a truck, since the trucking costs must be borne by the seller. Once they have gained the necessary knowledge and experience, these associations could eventually gain also the right to engage directly in foreign trade.

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MODIFIED AGRICULTURAL REGULATORS REVEAL MOUNTING COSTS

Budapest NEPSZABADSAG in Hungarian 1 Dec 82 p 10

[Article by Miklos Villanyi, state secretary of the Ministry of Agriculture and Food: "Modification of the Regulators in Agriculture"]

[Text] Fulfillment of agriculture's 1983 tasks--to maintain and improve the level of domestic food supply and to further expand export--requires also modernization of production's system of economic conditions. The results last year and this year show that the regulators to date have suitably stimulated the development of production; therefore a radical change of the regulators is not warranted, but minor modifications in them are nevertheless timely.

The most immediate causes that warrant modifications are as follows: improvement of the effect that agriculture and the food industry have on external economic equilibrium; a further rise in the prices of industrial capital goods and materials; adjustments in the cost-to-income ratios of certain branches and products; and incorporation of several state subsidies into the prices.

Changes in the Prices of Capital Goods

The domestic producer or import prices of most materials, equipment and sources of energy used in agriculture are rising continuously. At the same time, the amounts of state aid for their procurement are declining.

Thus farmers next year will be paying 18 percent more on average for plant protectants and herbicides, and about 6 percent more for mixed feeds. Important from the viewpoint of restoring soil fertility is the fact that the prices of manufactured fertilizers will not change in 1983.

The prices of farm machinery will increase on average by 18 to 20 percent, primarily as a result of phasing out the state aid provided for such purchases up to now, and due to a lesser extent to rising producer and import prices. Within this average, the prices of certain types of farm machinery will increase by 10 to 70 percent. The rate of increase will be relatively smaller for tractors and transportation equipment, but above average for special machinery used only in a branch of farm production.

Because of the differentiated income situation of the large-scale farms, such large price increases from one year to the next cannot be absorbed without jeopardizing the production objectives. Therefore we are enabling the large-scale

farms, and also the wineries and canneries to which the agricultural regulators apply, to cover in 1983 from their reserve funds the equivalent of the present state aid for the procurement of machinery. The large-scale farms that are operating under unfavorable natural conditions and lack sufficient developmental resources of their own will receive state development aid for the procurement of essential machinery.

The rising prices of capital goods and sources of energy, the higher charges for individual services and the curtailment of state aid have necessitated also small increases in the government procurement prices of farm products. Some of the price changes will be introduced in the form of central measures, while the others will be determined by mutual agreements between the sellers and buyers, in accordance with the production results and the market conditions.

Thus we expect the 1983 level of the prices applicable to government bulk purchasing to rise by an average of 3.7 percent, which will amount to 5.7 billion forints. The price rises will differ by farm products. Thus the bulk-purchase price of durum wheat will increase by 60 forints per metric ton, and the prices of other cereals will increase commensurately. The price of corn will be higher by 150 forints per ton; that of sugar beets, by 16 forints.

The price increases in the case of corn, rice, tobacco, peas, wool and cow's milk will be higher than their cost increases, hence their profitability will improve. The price increases for cereals, fiber crops, slaughter cattle and slaughter hogs, fruits and vegetables will compensate for the ripple effect of higher costs. The profitability of potatoes, wine grapes, slaughter poultry and slaughter sheep will decline slightly. The bulk-purchases prices of oil seeds and spice peppers will not rise.

In the interest of expanding export, the premium for growing more wheat will be retained also in 1983. In view of the low world-market price of sugar, however, retention of the premium for growing more sugar beets is not warranted any longer.

In the system of state aid there will be only minor changes, in addition to the ones already mentioned. To offset the rising costs in recent years, state aid for planting vineyards and certain types of orchards will increase. But at the same time, state aid for planting apple and morello-cherry orchards will decline.

Most of the additional costs not offset by the higher bulk-purchase prices will be recovered through basic-price subsidies in the case of farms operating under unfavorable natural conditions, and through higher special price subsidies on sales of cereals and slaughter cattle.

We will continue to provide incentives for the development of farming on household plots and subsidiary farms. The higher prices for capital goods and the higher basic bulk-purchase prices apply also to small farms. But the essential difference is that here we will retain without change the present government aid and benefits, including aid for purchasing small machinery.

Because of the higher bulk-purchase prices and other significant cost increases, the producer prices of the food industry will likewise increase, within the

circle of products and to the extent that are warranted. In accord with our policy on the standard of living, in the case of food-industry products with officially fixed or ceiling prices the higher producer prices will not affect the retail prices; instead, they will reduce the amount of turnover tax on these products or increase the amount of price subsidy on them.

Income Regulation, Taxes

A significant change had to be implemented in the system of income regulation. Although the present statutory provisions regulated adequately the outflow of purchasing power, on some farms they hampered remuneration for additional performance. With due consideration for the differences in the individual farms' levels of development and in their production structures, therefore, it has been decided to allow different forms of income regulation in agriculture in the future.

One form of income regulation, also employed at present, is the system of wage regulation. The change in this system will be that the possibility of increasing the wage level without a tax penalty will be reduced slightly. To encourage more efficient manpower utilization, 30 percent of the wages saved through reductions of personnel may be used for wage increases, without a tax penalty. The tax impact on wage increases will rise, and the circle of benefits will be narrowed.

As the second form of income regulation, regulation based on the level of gross income per worker will be introduced. Here the rate of annual wage increase that can be granted without a tax penalty ranges from 0.5 to 4 percent, depending on the amount of gross income per worker. The benefit of using the wages saved through personnel reductions for increasing wages without a tax penalty may be claimed also here.

The farms are free to choose either one of the above systems of income regulation. In addition, two more variants of income regulation may be employed by specified types of farms, on the basis of public competition. The first of these variants is actually wage fund regulation, where the condition for a wage increase without a tax penalty is the maintenance of the proportions of consumption and accumulation. A rise in the proportion of consumption over the average for the past three years is subject to progressive taxation.

Under the other variant, the farm pays a tax from its profit on the basis of the individual earnings of its workers.

The common feature of the experimental forms of income regulation is that they eliminate the side effects of the regulation of average wages and provide wider possibilities for incentives geared more closely to performance. From their introduction we hope to gain further experience for perfecting our system of income regulation.

Besides the changes mentioned above, there will be only minor modifications in our system of taxation. To counter the manpower-diverting effect of the rapidly expanding industrial, construction- and service-industry activities of large farms in and around Budapest, their tax rebates on individual activities will be reduced to one-half.

The state farms too will pay into the state budget--the cooperatives, into their reserve account--7 percent of the combined total of their development fund formed from their 1982 profit, and of their 1983 depreciation. Farms classified as farming under unfavorable natural conditions will be exempt from this measure; and farms receiving aid for other reasons will transfer only 4 percent.

As of the beginning of next year, the rates of depreciation for buildings and structures will be reduced by 30 percent. Simultaneously, however, also the large-scale farms will change over to calculating the depreciation of their buildings and structures on the basis of the value not reduced by the amount of state aid, except in the case of buildings for fattening hogs and sheltering dairy cows.

The circle of investments exempt from construction tax will be narrowed. In the interest of encouraging investment necessary for the expansion of export, however, the construction of buildings to shelter cattle, hogs and sheep, and of storage facilities, will remain tax-exempt.

Several new measures will aid in the future the regrouping of development funds between farms, and the investment of such funds in a manner that offers a higher return. For example, the conditions for the temporary or permanent transfer of development funds will become more flexible and more advantageous for both parties, and it will be possible to issue and purchase bonds to aid the realization of investments.

For specified purposes, developmental resources may be supplemented with resources also from the farms' existing reserve fund. In addition to the already mentioned procurement of machinery, the reserve fund may be used also for building temporary storage facilities to store apples, to create jobs for the physically handicapped, and on farms operating under unfavorable natural conditions also to replenish the working capital in conjunction with increasing the cattle and sheep herds.

Other Measures

Similarly as in the other branches of the economy, also in agriculture the social security contribution payable by agricultural enterprises and cooperatives will increase by 3 percent.

There will be basically no change in the system of agricultural credit. Investments with a short payoff period that help to expand export will continue to enjoy preferences. In addition, investments for energy conservation and the utilization of wastes will likewise receive preferential treatment. As of 1983, mandatory formation of a technical development fund will be abolished also in agriculture. In the future the farms will be free to decide whether they wish to form a technical development fund, the allotments to which may be charged to other expenses. However, the large-scale farms will have to pay a technical development contribution on their industrial and construction activity, and in pricing this contribution may be regarded as a cost factor.

Our objective is to let the prices and financial regulators exert more pressure on the large-scale farms, compelling them to adjust to the new conditions, to manage costs prudently, and to improve the quality and competitiveness of their products.

HUNGARY

TARDOS OPENS DEBATE ON REFORM'S FUTURE

Budapest HETI VILAGGAZDASAG in Hungarian No 20, 2 Oct 82 pp 26-28

[Article by Marton Tardos, economist: "What Should We Do To Defend Our Results?"]

[Text] Is the slowdown in Hungary's economic development sufficient cause for us to renounce the further development of economic management? Can we rest satisfied with the treatment of symptoms, and shall we not once again lose valuable time by pointing to the severe situation of the world economy and the untimely nature of a reform's reform? These are the questions, among others, raised by economist Marton Tardos, whose article we present below. We intend this to be the opening of a debate, and we await comments and views, which we will publish--observing the unwritten rules of democratic debate--even if we do not unconditionally agree with what is said.

The broad subclasses of our society can sense from the press, radio, and television that our political and economic leaders are concerned and are urging the country to exert more intensive efforts under "the conversion to a new growth track" proclaimed by the MSZMP Central Committee in December 1978. I am of the opinion that public opinion does not clearly understand the references to the altered situation by our economic leader. It is not always clear to the population, or even to those who know the economic situation,

- how we have come into danger,
- what we need to fear, and
- what we can do to avert the danger.

It is well known that the 1968 reform in the economic mechanism resulted in a rise in living standards and an improvement in supplies and thereby evoked the satisfaction of the population. But at the end of 1972 the development, which had lasted for several years, was interrupted. Emphasis again was placed on strengthening ministry guidance, and economic regulation was adjusted to the conditions of certain enterprises. Enterprises were again amalgamated. Attempts were made to cut back the activity of small agricultural, industrial and private operations.

Following the recentralization of economic guidance, foreign economic conditions began to deteriorate rapidly at the end of 1973. This situation would have called particularly for enterprise adaptability and a purposeful, central economic policy capable of adjusting to the new conditions. But at this point--according to academician Jozsef Bognar--a standstill in activity occurred: investments continued to increase and the stock of unfinished investments rose to record levels, while the increase in consumption was moderated.

The directions that developed between 1973 and 1978 resulted in some change by 1979. Accumulation declined between 1979 and 1981. Real wages were reduced by 2.8 percent between 1979 and 1980; after a temporary rise they will return to the 1980 level. But most of the population are aware of difficulties in the Hungarian economy only through price increases and are only now becoming aware that living standards and the quality of commodity supply are in danger.

Because of pressure to take the obvious steps in management, the slogans of enterprise independence and making financial regulation uniformly effective for all enterprises have again come to the forefront. The price system has been investigated and a competitive price system announced. The transformation of subbranch management has begun, and the Ministry of Industry has been established. Several large enterprises and trusts have been dissolved.

However, the new principles of regulation and even the decline in internal demand have not put an end to the long-existing practices of enterprise management. An enterprise leadership strongly dependent on central organs is trying for the most part to create appropriate conditions for negotiating with the managing organs. It is doing this in part to adjust to central expectations. Thus it will not be constrained to seek the conditions of survival in its own resources and to undertake market risks with its production-marketing activity. Pointing to the difficult situation, the central organs are managing by means of detailed and informal intervention while proclaiming the principle of enterprise independence.

A late and insufficient adjustment to external conditions did not contribute to the stabilization of the successful achievements of the Hungarian economy. The keen rivalry, which grew out of the prolongation of the depression in the capitalist world, the problems with CEMA deliveries, and the general narrowing of credits by the capitalist countries--including their discriminatory credit policy toward socialist countries, a policy that has also been strengthened because of unfavorable experiences with the payment reliability of several socialist countries--presented Hungary with a difficult situation by 1981. We are not only speaking here of the fact that it was possible to restrain somewhat the deterioration of the external equilibrium by holding back imports and by not increasing exports or that dollar marketing was not increased in trade with the developed capitalist countries. We are also speaking of the fact that everything we have done thus far against the deteriorating economic conditions has proved too little for a true solution to the tensions.

In the present situation, efforts at maintaining living standards have been endangered. Not only has the danger of a decline in living standards become a reality but market shortages have reappeared. Therefore, our achievements can be protected only if we succeed in making an important turn in our management.

A frank disclosure of the danger is, I believe, an important point of departure. Without this we cannot create the prerequisites for national unity, which can lead to success even in a difficult situation and after delays. The stake for which we must struggle is the protection of living standards and the assurance that every citizen can decide how he will use the income gained through honorable work and that he will not be exposed to the exigencies of shortages. The stake is big: it is necessary and worthwhile to make sacrifices to protect the results that have been achieved.

It is possible to get the support of broad subclasses of society on behalf of reform because society is aware of the achievements and because foreign experiences warn against the disintegration of the normal process of economic life.

The problems over the country's ability to pay raises the possibility that following a reduction in investments we shall try to solve the problems by restraining living standards and strengthening enterprise administration. It appears clear, however, that we cannot choose this path because it would mean a retreat toward lower living standards and create acute shortages, which not only evoke social and political problems but would also fail to represent a long-term solution. Social unrest would not represent the best appropriate conditions for starting on a new path of growth.

From the viewpoint of our society as a whole, an acceptable solution would be promised only if we continue on the path of the New Economic Mechanism. But this is not simple to do for three reasons:

- The attraction of the New Economic Mechanism has substantially declined because of the many feelings of mistrust;
- Given the present external stress, economic reform proposals cannot be realized without unfavorable side effects;
- The preparation of measures necessary for establishing the foundations of reform and the development of the positive effects that might be expected from them would require a considerable amount of time, and we need rapid results.

It is essential to adjust economic management to already approved goals and slogans in order to change management conditions. With purposeful steps we must break out of the devil's circle in which the enterprises do not react to market phenomena. We can point out with some justification that the expectations of the central organs do not make market-oriented behavior possible. For the sake of change it is necessary to rely on those who are ready for market management, on more independent leadership of enterprise units, and on expansive export growth and import substitute activity so that their revenues will rise as a function of their achievements.

The difficulty in the next phase of economic reform is that it will be necessary to implement income differentiation in the given situation. Over the short run the general standard of living cannot be raised, but we must still give material incentives to those who are cooperating successfully in solving

the bottleneck of management, namely, the tension in the capitalist balance of payment. This means--and this must be openly avowed--that in the interest of a long-term growth in living standards, the living conditions of certain subclasses will deteriorate at least temporarily. It cannot be set as a goal that everyone's living standards should be stabilized. We cannot strive even to minimize differentiation because only by avoiding this effort can we honor those from whom we may expect a solution to the serious problems that weigh on the economy. The deterioration in the situation of the groups that are affected will still be less than the decline that would be required by the strategy of retreat. Naturally we must prepare with great care and deliberation to see that the changes hurt the poorest subclasses of society as little as possible.

We must also reckon with the fact that among the foreign economic conditions that squeeze the economy the necessary transformation of the Hungarian production structure reduces the security of workplaces, and we must also reckon that we will not always succeed in maintaining central control of the change in prices. Still, I believe it will be necessary to undertake this in order to avoid great harm.

We must also speak of the therapy, of the measures that I believe are necessary and that directly affect management. In my opinion we need primarily to develop further the 1968 system of combining market elements and planned central intervention. The problem requires the answer to five closely interrelated questions:

- The harmonization of plan and market, which in turn entrusts to the market, and the harmonization of supply and demand, in a significant range of products.
- The establishment of an institutional basis for the legal independence of enterprises, which means the separation of state administrative and property functions, and of a means of property holding in the areas of competition that is in harmony with competition and the separation of enterprises.
- The placing of financial regulation on a uniform foundation, the growth of the role of free prices, and, in harmony with this, the termination of the MNB's [Hungarian National Bank's] monopoly and the founding of business-type banks.
- The establishment of multichannel domestic and foreign trade for consumer items and producer means.
- Finally, the reorganization of income regulations for enterprises and individuals. (I have addressed all these questions in detail in KOZGAZDASAGI SZEMLE, No 6, 1982.)

The common characteristic of the above-listed measures, however, is that their introduction and the development of their positive effect will in varying degrees take a long period. Therefore, we also need a short-term program which in its directions is in harmony with the outlined goals but may bring significant results within a short time.

Drafting a program like this demanded less effort than did outlining the aforementioned medium-term program.

My proposal for a short-term program will require much more work, detail, and control. Still, I undertake the risk of outlining its main features in an unfinished form.

It is by economic means that we must have management concentrate on exports and on import substitution. A turn is necessary: we must create the conditions whereby we can increase our share of the capitalist markets--primarily of the market for processed goods--despite the keen competition. We must not create these conditions at any cost but we must create them effectively.

A similar change is unavoidable in import substitution. We must substantially reduce import demand without causing shortages. We must replace imports in such a way that the replacement will not represent a loss for the consumer if he uses domestic products. To be sure, neither persuasion of the leaders nor administrative means cannot dissolve tensions.

We need resources, which were not used intensively enough in the past, primarily for mobilizing manpower and capital. The possibilities are further increased by the fact that since 1979 domestic consumption has been reduced while (at 1981 prices) more than 500 billion forints' worth of investments were put into operation. In order for us to use these capacities for the new task, we must realize wealth-creating long-term profit incentive in the present system of enterprise supervision. We should regard profit gained over the long term as an indication of success, and we should have the supervisory organs judge the operation of enterprises primarily from this point of view. Under these circumstances the prestige of enterprise leaders and of the collective may increase even if a part of the revenues is later centralized for some reason.

We should reduce the scope of emergency budgetary support for enterprises. To this end, we should implement the idea, which was approved already in 1980, that amortization may be used for renovation and investment if the revenues of the enterprise make this possible. If revenues do not cover costs, it is true that investments and renovation will fail to be realized and thus the real value of operational capital will surely decline. But the enterprise will remain operational even without budgetary support.

We should substantially increase the freedom of state and cooperative enterprises in the area of wage management in order that they should be able to mobilize the workers and the lines of production for efficient exports and for import substitution. In this connection we also ought to increase to a significant extent the independence of factories and production lines that are successfully replacing imports.

The establishment of small state and cooperative enterprises has been announced, and although still progressing with difficulty, they may be an important source of success primarily in manufacturing and the construction industry. In order to realize this possibility we should use a part of the free, or not efficiently

used, means for establishing new enterprises, frequently subsidiary enterprises. With the help of capital allowance [tokejovairas], rental [berleti dij], or interest annuity [kamatjaradek] we should effectively interest enterprises in such activity as have the free capacity to transmit the means to new enterprises. At the same time we should see to it that the charge for capital that is left unused or are operated at a loss should depend to a great extent on enterprise results.

In outline, I have described my own proposals. But we need the proposals of many people, for the situation is difficult and the task to be solved is very great.

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BASIC ASSUMPTIONS OF ECONOMIC PLANNING REVIEWED

Warsaw RADA NARODOWA GOSPODARKA ADMINISTRACJA in Polish No 19, 18 Oct 82
pp 24-29

[Article by Eugeniusz Gorzelak: "The National Socioeconomic Plan to the Year 1985 and Initial Assumptions for 1986-1990; Most Important Determining Factors: Labor, Wages, Prices"]

[Text] The government has made a proposal to the society to discuss the document "Variant Concepts of the National Socioeconomic Plan to the Year 1985 and Preliminary Targets for 1986-1990" and to express its will by adopting the appropriate variant and solutions therein contained.

The proposal expressed at the beginning, that of a change in formulating the implementation of social goals of development during this very difficult period in which it is necessary to restore economic, social, and political equilibrium is important. The proposal calls for a departure from the traditional formula of "the state provides" in favor of the formulas: "the state facilitates," "the state will create conditions," thereby opening up opportunities for the utilization of the society's initiative, activity, and energies. This coincides with the spirit of the economic reform which we are introducing to get out of the crisis. The formula change may be most clearly illustrated, for example, in housing construction, because at the present time housing policy emphasizes private construction using the cheapest technologies, and through personal commitment it should reduce unit costs, which, given the estimate of the overall size of investments, would make it possible to build a larger number of apartments. On the other hand assistance must be given to small housing co-operatives and small private construction and remodelling firms to create the appropriate infrastructure in the form of all sorts of municipal systems (roads, water, electricity, sewers, and so on), to say nothing of building designs, access to building materials, and so on. The state therefore will not provide apartments, but the state will "create the conditions" for the expansion of the housing construction program, and a substantial proportion of citizens will build their own housing, taking advantage of these conditions.

In the developmental plans which the government presents to the society for consideration we can distinguish among four stages:

Stage I -- the period to the end of 1982. The main problem during this stage is to slow the recession trends in the economy.

Stage II -- this is the period of the three-year plan for 1983-1985. The main problem of this plan should be to overcome the crisis and restore economic balance on the domestic market and in the state budget and investment activity, that is, internal balance, a return to a normal, well-ordered economy, in conjunction with the completion of the introduction of the basic targets of profound economic reform. This would mean at the same time the attainment of freedom of operations aimed at the initiation of reconstruction of the structure of the national economy necessary to improve the economic effects achieved and raise the extent to which the needs of the society are met.

Stage III -- the years 1986-1990. The main problem of this period should be a transition based on putting the economy in order, transition to its moderate but differentiated development. Particular attention should be given to an orientation towards export, in order to gain equilibrium in the balance-of-payments situation in foreign trade, that is, the gradual gaining of external equilibrium.

Stage IV -- the years 1991-1995. The main problem of this period should be the transition to a more rapid simultaneously high-quality development of our economy. To do this we need organic work on creating, in this decade, the foundations for more balanced, successful development of the economy after the year 1990.

Today our attention is largely focused on the years 1983-1985. Therefore the question arises as to what sort of targets should be placed before Polish society during this period.

The three-year plan proposes the following four major social goals:

-- assurance of the proper level and structure of national nutrition, reducing insofar as possible the dependence on grain and food imports,

-- meeting the housing needs and developing the community and urban infrastructure in this connection to the greatest extent possible in the anticipated economic situation,

-- protection for those population groups and strata which materially are at the greatest disadvantage from the effects of the crisis, with active state action aimed at reducing or eliminating poverty zones,

-- attempt at noticeable improvement in the society's level of satisfaction through improved organization and functioning of social life.

The possibility of accomplishing each of these goals nonetheless depends on the rate of growth of the national economy. As everyone knows, this year we shall not achieve any increase in national income. On the contrary, we are counting on a decline of about 7 percent. This will have an adverse impact on the rate of growth in the next few years, which in turn will bring about a decline in the possibility of full realization of the goals projected. We must also keep in mind that the plan was set down under conditions of uncertainty. Where does this uncertainty appear?

First, in the development of the sociopolitical situation within the country, in the attitudes of the society, in the difficulties in attaining social agreement and integration of the nation, the active commitment of creative groups, and so on. These elements of our nation's life have a tremendous impact on the development of the economy, the upgrading of the activity and effectiveness of management, and on the full implementation of the economic reform. The plan assumed social stability and anticipated that social attitudes and the general sociopolitical situation would favor normalization of the economic processes.

Second, in the development of external conditions. The development and deepening of cooperation and economic integration with the Soviet Union and other socialist countries are expected to play an exceptionally positive role as projected in the plan to activate the economy, but in relations with the capitalist countries, the matter is not so clear, and to a great extent it is upon this factor that we will depend for the economy's supply of raw materials and its capability to repay the debts with their considerable burden of interest.

The most probable assumption seems to be that conditions will be negotiated for us to repay our debts in a manner which will make it possible for us to increase imports from the Western countries even in 1983-1985. To this end it would also be necessary to obtain more favorable conditions for the repayment of obligations and to extend them over a longer period. In this case the expansion of imports from the capitalist countries along with intensive action to rationalize these imports would make it possible to gain gradual improvement in the supply of raw materials imports and, as a consequence, to increase production and exports, to improve the trade balance, and to increase national income even beginning in 1983. The growth of production and market deliveries would help accelerate improvement in the market situation.

On the other hand, we cannot rule out the possibility of adverse development of the situation, including the possibility that the current foreign trade restrictions imposed by the creditor countries will continue through 1983-1985. The consequence of this could be the need to keep imports from creditor countries at their current low level for 2-3 years. Under these conditions we cannot rule out a further decline in production and national income on into 1983. This would bring about a slower rate in the restoration of production up to the year 1985 and as a consequence further limitations on the possibility for repayment of credit, owing to

lower income from exports. This would also extend the transition to market equilibrium. We can estimate that this variant is rather unlikely, but it must be considered in further work and be treated as an emergency variant.

Third, in the difficulty of precisely anticipating production effects and of improving the economic results of factories and service enterprises as the result of the economic reform. After 1975 effectiveness generally declined. This fact was expressed in the phenomenon of costs increasing at a rapid rate and in deterioration of the ratio between gross production (in industry, sold production) and net production, or national income. These ratios must be improved, and this is undoubtedly difficult, because it depends on economical management in many enterprises.

The plan calls for such improvement, but the scale is unknown. But the issue is not an unimportant one, inasmuch as it involved 25-40 percent of the total projected increase in national income. We must reduce the consumption of energy, raw materials, fuels, and other materials. This also applies to agriculture, in which the level of application of chemical fertilizers, the major crop-producing element, is by no means low, being greater than that of many European countries (Sweden, Italy, Austria, Bulgaria, Yugoslavia, and others), but yields from cultivated crops still remain at a low level, and they are even declining.

Fourth, in the impossibility of foreseeing what the weather will be like, and weather has an impact on the crop levels of our fields, gardens, orchards, meadows, and pasturelands. In 1976-1982 crop levels were poor. What will it be like in the future?

With consideration for all the factors with which an element of uncertainty is associated, three variants of basic indices for socioeconomic development were adopted.

Variant I is based on the assumption that both in 1983-1985 and during the following five-year period the conditions for the development of farm production will be worse than average, that the effects of the economic reform will come slowly, and that economic restrictions will continue in coming years. Under these conditions the indices for economic development are bound to be the most modest, and it is the most difficult to predict the attainable level, which will depend on the force and cumulative effect of the difficulties.

Variant II features moderate developmental indices and is based on the assumption that the farm production conditions will be average, that the implementation of the economic reform will produce gradually rising economic and production effects, and that the situation in trade with the capitalist countries will undergo normalization, while the new principles for refinancing the debt will be easier at the same time.

Variant III, which has the highest indices, is based on the assumption of above-average crop yields in agriculture and very rapid reform results, including substantial activation of exports to capitalist countries even before 1985 and even more so in later years, which would permit both the gradual expansion of imports and the repayment of our debt, and would also step up the process of our gaining equilibrium in our balance-of-payments situation. After a presentation of the economic consequences of each of these variants, the most likely variant, Variant II, was adopted as the basis for constructing the three-year plan.

We must also keep in mind the impact of working hours. If for a certain transition period, for example, to the end of the three-year plan being reviewed here, we were to return to a 6-day workweek in those plants which are not suffering from a shortage of raw and other materials (which of course would require that the workforce of these plants agree to do so), then the following could be brought about:

- an increase of 4-5 percent in industrial production in 1985 in relation to current targets,
- an industrial production level above that reached prior to the crisis even by 1984, that is, a year earlier, and acceleration of the attainment of the precrisis level of national income and consumption by at least 6 months and perhaps even a year, because the first effects achieved may have an impact to improve the supply situation and accelerate production growth.

Planned Macroratios

Four factors have been adopted in the plan as the major driving force for rebuilding and developing the economy:

- economic reform and through its help the activation of a process of constant improvement in effectiveness,
- restructuring of the economy, for example, to put the food economy in a better situation,
- reorientation of foreign trade in terms of tightening the bonds of cooperation with the CEMA countries,
- activation of research and development facilities.

If significant progress can be achieved in these areas, the following economic picture can emerge in 1985:

- Industrial production expansion of 12-17 percent, depending on the variant, from 1983 to 1985, that is, at a mean annual rate of from 3.8 percent to 5.4 percent; this would make it possible in 1985 to achieve in Variant II the highest production level prior to the crisis (99 percent) basically;

-- Agricultural production growth in 1983-1985, given average weather conditions for agriculture, identical in all variants, that is, about 10 percent altogether over the 3 years; with these targets agricultural production in 1985 would basically be at the 1978 level, that is, the highest level achieved prior to the crisis (99.5 percent);

-- As a result generated national income could growth by from 11 to 18 percent in 1983-1985, depending on the variant, which means an average rate of 3.5 percent to 5.6 percent per year, depending on the variant. Nevertheless, in contrast to industrial and agricultural production, by 1985 it will not reach the level equivalent to the highest level prior to the crisis.

Depending on the variant, this income would reach a level of from 82 to 87 percent of the highest previous level, which was achieved in 1978.

We must note that beginning in 1982 there will be a change in the ratio of the increase in generated national income to that of the income for distribution in the country, that is, a return to the ratios of the 1970's. This exerts a basic impact on the macroratios to the end of the decade. In the 1970's, in connection with using foreign credit, the rise in income for distribution within the country greatly outpaced the rise in generated income, but beginning in 1982 the increase in national income for distribution will be slower than the increase in generated national income. This will be determined by the need to allocate an increasing share of it for service of the foreign debt. The balance of foreign trade turnovers in 1985 will reduce generated national income by from 3 to 4 percent, depending on the variant. In this connection the growth rate of income for distribution may range from 9 to 15 percent in 1983-1985.

Total national income for distribution in relation to the highest pre-crisis level (1978) would come to only 76-80 percent of that level by 1985. Thus, from now until 1985 it would be possible to make up only about a third of the decline in income which occurred between 1978 and 1982. This fact is of great importance to the distribution of national income in all variants.

The most probable variant, Variant II, was used as a basis in further deliberations, because it was difficult to apply further variant solutions to all three basic variants.

These are the variant solutions:

-- either to maintain to the year 1985 the investment level attained in 1982 so that a maximum share of the increase in income may be allocated to consumption, that is, the proposal to protect consumption ("a"), which would mean a further decline in the net investment share,

-- or to maintain the net investment share to the year 1985 at the level achieved in 1982, that is, the proposal to protect investments ("b"),

-- or to increase the share of the consumption fund in relation to 1982 at the cost of reducing the absolute level of investments, that is, the proposal to maximize consumption ("c").

In presenting these proposals and their consequences, the government is taking a stand to adopt the variant to protect consumption ("a") as the basis in the three-year plan, stabilizing to the year 1985 the total size of gross investments and freezing them at a level not lower than the 1982 level.

Even in this case, however, the share of income for distribution devoted to consumption in 1985 will drop below 1982. This is determined by the need to build up stocks, whose growth in 1985 is projected at 200 billion zlotys, as opposed to the zero growth of 1982.

In this variant there is the opportunity to increase the overall dimensions of the consumption fund in 1985 by about 11 percent in relation to 1982 with only a 5-percent lower net investment level in 1985 than in 1982. In conjunction with the more rapid rise in depreciation, however, this would mean freezing gross investments at the 1982 level to the end of the decade. At the same time this would mean in 1985 achieving about 94 percent of the highest level of consumption out of personal income before the crisis, that is, the 1980 level, and in per capita terms this would come to about 88 percent.

Nonetheless, in assessing these indices we must remember two important circumstances: first, the fact that the 1980 consumption level was accomplished partly at the cost of foreign indebtedness -- by estimate about 4 percent of this came from the margin by which imports exceeded exports -- and second, the fact that the 1980 consumption level was achieved on a 6-day workweek, and it may be estimated as a result that 4-5 percent of the consumption fund was based on the consumer goods produced during working time on Saturdays.

The next choice in economic policy to be considered by the society concerns the ratios for distributing total consumption for consumption out of personal income versus consumption which is termed "other," that is, mainly collective consumption. The choice basically boils down to answering the question of how to structure society's income, of whether to take the route of increasing personal income or that of increasing collective income (we use the term "collective consumption" to specify the value of products and services which the population receives at no charge out of the fund of benefits for the population. This category of consumption includes the value of the services of education and upbringing, culture and art, public health and social welfare, sports, tourism and recreation, and also subsidies for pharmaceutical products bought at a discount or received free of charge and subsidies for the housing economy).

In this instance, then, a choice must be made between the following:

-- greatest possible increase in consumption out of personal income, even at the cost of collective consumption, that is, "priority of private consumption" ("a"),

-- greatest possible increase in collective consumption, even at the cost of private (individual) consumption, that is, "priority of collective consumption" ("b"),

-- more equal increase in private (individual) and collective consumption ("c").

According to the choice made, a greater share of resources would be funneled to increase the population's personal income or to increase state budget-financed expenditures for collective consumption purposes. In presenting the appropriate figures and consequences of all the variants under review, the government is proposing that the three-year plan be based on the variant of "more even growth of the level of private and collective consumption" ("c"), taking into account the fact that budget expenditures help meet important general social needs and are relatively inflexible. With these assumptions, other consumption would increase in 1983-1985 by about 9-19 percent, that is, at an average rate of from 3.2 to 3.9 percent per year, which is a somewhat lower rate than that for consumption out of personal income. Within this framework, material budget-financed resources for sociocultural purposes would increase during that period by 13 percent accordingly, in constant prices.

The share of net investments in Variant II and the "protection of consumption" subvariant in 1985 would amount to 16.2 percent of the total income for distribution, and the share of gross investments would approximate 23 percent. This would mean freezing gross investments in 1983-1985 at the 1982 level, at about 995 billion zlotys per year, calculated in new 1982 prices.

I will pass on to a discussion of the major directions of socioeconomic policy, among which are the following: balancing the market and the budget, state social policy, investments, regional policy and the policy of voivodship development, foreign trade, and scientific-technical policy.

Balancing the Market and the Budget

The plan proposes the assignment of domestic market priorities for the next few years. Given the existing import and raw materials restrictions, total market deliveries in constant prices could increase by about 18-20 percent in 1983-1985 in comparison to 1982. Considering the need to set aside part of these deliveries to supply units of the socialized economy and the need to rebuild the stock in trade so greatly reduced in the years 1980-1982, the supply of market commodities to the population can increase by about 16-18 percent in constant prices. This growth is inadequate from the viewpoint of existing needs, and for this reason it is necessary to exploit all possibilities for additional supplies of goods and services.

Under these conditions we can expect market policy to be based on the following principles:

- determination of minimum supply to the population of commodities of basic importance to the everyday life of the working family and assurance of adequate deliveries of these commodities to the market, and the prices on these commodities should have the nature of official and regulated prices and be subject to control,
- exploitation of the possibility of exporting market goods, luxury goods, and goods meeting needs of a higher order, in order to make it possible to import raw materials for the production of market goods which satisfy basic needs,
- sales of other market goods at equilibrium (conventional) prices without compensation to the population in the event of price increases with regard to these commodities.

In order to combat market imbalance and disintegration of the market, economic policy should avail itself, among other things, of the mechanism of having the state regulate inflation on a moderate scale as well. Thus, during the next few years the state should conduct a policy of moderate, controlled inflation, because during this period it will not be possible to avoid price increases. It will take many years to balance the current large-scale shortage of market goods. Under the existing conditions, the new principles for the structuring of prices, which are an integral component of the reform, are a factor which exerts an impact in the direction of price increases. For these reasons, we should count on relatively substantial increases in prices to the year 1985. On the other hand there should be an effort to gradually reduce the scale of price increases from one stage of increase to another and to gain control over the processes of inflation as soon as possible. For this reason a diminishing growth rate of prices is projected. The increase is currently estimated at about 25 percent in 1983, about 15 percent in 1984, and about 10-15 percent in 1985.

The relative great price increase forecast for 1983 (25 percent) is the consequence of the results of the price changes made in 1982, the anticipated hike in the price of fares on public transportation, and the need to increase official prices to partially eliminate budget-financed subsidies, including those on the means of production for agriculture. On the other hand, it is anticipated that there will be a decline in the extent of the spontaneity of price increases for goods and services through appropriate action on the part of the price bodies. In this connection we anticipate in 1983-1985, alongside variable prices, the paying of compensation, the use of wage adjustments, the introduction of a variable interest rate on credit, a policy of adapting credit interest rates, and a policy of adopting an interest rate on savings deposits that will encourage increased savings.

Overall it is estimated that the supply of goods, in current prices, over the 3 years would increase by about 75-80 percent, but its growth would exceed the projected rise in population income in current prices, amounting to about 65 percent. This would be by 1985 overall balance in the population's income and the supply of goods and services. This should be expressed in a level of commodities exceeding current income of the population in 1985 and in the building up of stock in trade to a level of about 480 billion zlotys in 1985.

State Social Policy

Giving attention to the mutual relationships between social and economic policy in 1983-1985, it will be possible to allocate to the social benefits fund only that amount of resources which is needed for the social protection of those population groups in a difficult life situation, but in the realm of social and cultural services the funds will make it possible basically to maintain the past ratios in terms of total budget outlays.

At the same time we should note that as the consequence of past and forecast demographic processes to the year 1990, there will be an increase of about 25 percent in the burden which employed persons bear in supporting people who are not employed (this includes people not of working age, children and youth, mothers on maternity leave to raise children). In this connection there is a proposal to base state social policy in 1983-1985 on the following principles:

- adapt the scope of state care-taking functions to the situation stemming from the economic crisis, that is, to the current level of the state's financial and economic capabilities, especially by reducing the state's care-taking functions to those population groups in the most difficult situation, people living in poverty or threatened with poverty, the handicapped, and those unable to improve their situation through the effects of gainful employment,
- establish areas which should be financed out of the social consumption fund,
- state build-up of social assistance conducted by social organizations, churches, workplaces, and regional self-government,
- accomplish the redistribution of income of strata earning high incomes to improve the situation in areas determining the society's living conditions (public health, education, culture, public transportation).

Investment Policy

Investment policy will be implemented under the new conditions resulting from the economic reform. In this connection direct state influence on investment activity will be reduced to central investments and the invest-

ments of voivodship officials using central subsidies. Only an estimate of the sizes and allocations of investment outlays of the enterprises and the population is possible. State influence on these investments will operate largely through the banks' credit activity.

The basic element determining investment policy during the next few years is the fact that in the light of an analysis of the existing possibilities, the general level of investment outlays in the national economy to the year 1985 will not be able to be higher than in 1982. Up to that time the essence of the problem boils down then not to the formulation of new investment programs but to the determination of the most effective possible scope of implementation of programs already begun.

In this connection, it will be impossible, not only to 1985 but also up to the year 1990, to undertake new capital-intensive investments or those with a long completion cycle, because the reduced capabilities in this area must be devoted mainly to investments in the urban infrastructure without which future housing construction would be impossible.

Within the framework of the overall volume of outlays, it is predicted that during this period there will be a great increase in the enterprise investments accomplished using their own development fund. Independent enterprises will assume total amortization and therefore the investment directions too. The main burden of restoration and modernization investments will shift to the enterprises.

It will also be essential to increase the share of investments handled by the voivodship officials (including socialized housing construction) at least from the 28 percent of 1982 to about 31 percent in 1990, because they have the greatest impact on the population's living conditions.

Throughout the period to the year 1990 priority should also be given in investment to the population, particularly in the realm of agriculture, housing construction, and services, and their share should increase appropriately from 18 percent to 24 percent. As a consequence this is bound to mean a basic reduction in the share of investments which have previously been carried out as central investments. We estimate that the share of these investments in the ultimate model will decline from about 65 percent in 1976-1980 to 20-25 percent of total investments in the country.

Under these conditions we can expect investments suspended in 1981 and 1982 to be restored no sooner than 1986. At the same time it will be necessary to make a further reduction in the number of investments being worked on and to hold up those among them which cannot be completed in the next few years. On the other hand, work should be all the more intensive on finishing up those investments which can provide a rapid rise in export or market production, those which can reduce our dependence on imports from the capitalist countries, and those related to environmental production. Under the present circumstances, this does not make it possible for the Sejm or the government to undertake decisions for new investment

programs, because the consequence would be bound to be a reduction in the outlays designated for the food and housing construction program, which would not be wise in view of their social significance.

In the distribution of total investments, the government will choose the directions in keeping with the provisions of the Ninth Extraordinary PZPR Congress and the resolutions of the Politburo and Supreme Committee of the ZSL relating to the development of agriculture. These points concern allocations concerning total outlays in the national economy: 30 percent for the housing complex (including land development and the housing industry) and 30 percent for the food complex (including the food industry and the industry producing the means of production for agriculture).

The allocation of 60 percent of total national economy outlays for these two directions means that the possibilities for shifts in allocating investment outlays for other sectors and subsectors in the economy are reduced to a minimum.

In addition, according to the resolution of the Ninth Extraordinary PZPR Congress, the mobilization of a program of investments aimed at environmental protection is also envisaged.

Thus, between 1983 and 1990 three investment programs of key social importance would be carried out: 1) a food program, 2) a housing construction program, and 3) an environmental protection program.

At the same time, under the auspices of separate programs at the government-echelon level, investments should be carried out that provide the material and technical bases for carrying out social programs, that is, the fuel and energy program and the program of rail transport and the accompanying infrastructure, because the proponderance of such investments are executed as central investments. These programs should represent an integral part of the plan to the year 1990.

It is absolutely certain that the investment sums available for distribution out of national income are far from adequate to meet real social needs. Therefore, a choice must be made among three variants proposed in the plan, variants designated conventionally as follows:

-- the "production variant," which gives the priority to meeting production needs; within the framework of this variant it would be possible to allocate 30 percent of total outlays for the food complex, but this would be at the cost of the housing complex,

-- the "social variant," which gives priority to the whole sphere of social consumption, mainly the housing complex; in this variant it would be possible to allocate to the housing complex 30 percent of total outlays, but this would mean 28 percent of total outlays would go to the food complex,

-- the "housing variant," which gives priority substantially to housing construction; in this variant 35 percent of total outlays could be allocated for this purpose, but at the cost of the other complexes.

In presenting the consequences of each of these variants, the government proposes that the three-year plan be based on the variant called the "social variant," which gives priority to the consumption sphere, especially housing construction, because this variant harmonizes most equally the needs of the two priority complexes, food and housing. In this variant it would be possible to allocate in 1983-1990 20 percent of all outlays to the food complex, including industry working for agriculture, but the resolution of the Politburo of the PZPR Central Committee and the Supreme Committee of the ZSL calls for a 30-percent share.

Regional and Voivodship Development Policy

Owing to the limited field of maneuver, it will not be possible to make substantial changes in the regional structure. The main task of necessity must be to restrict and slow the decline in the condition of the environment, to put regional planning systems in order, to ease the imbalances in voivodship development, and to activate the smaller town and gmina [parish] centers. It is also essential to build up the functions of the small and medium-sized towns and accentuate service to agriculture, activation of small-scale manufacturing, especially food and services, and the like.

Among the several variants, the government proposes that selective priority be given to certain urban centers and voivodships. The following 13 voivodships and four urban centers are proposed for priority in the distribution of subsidies for the investments of voivodship offices: the voivodships of Radom, Ostroleka, Jelenia Gora, Lomza, Walbrzych, Tarnow, Tarnobrzeg, Czestochowa, Przemysl, Bielsk Podlaski, Siedlce, Sieradz, and Suwalki and the urban centers of Katowice, Krakow, Lodz, and Gdansk.

Foreign Trade and Cooperation

There is need for far-reaching differentiation of foreign trade development policy and strategy with socialist countries, capitalist countries are highly advanced, and developing countries.

In turnovers with the highly advanced capitalist countries, the concept of the policy of servicing our foreign debt is of key importance. The scale of our indebtedness, which was 25.5 billion dollars at the end of 1981, means its repayment must be spread over a long period. To this end it is necessary to negotiate more favorable repayment conditions as soon as possible by agreement, closely adapting the size of the payments to the payment situation.

In order to gain payment credibility in the world, we should work systematically to improve the balance of commodity turnovers with the capitalist

countries. Substantial improvement in this balance will create the source for undisputed repayment of debts and will lead to the beginning of the process of getting out of debt still in this decade.

The government will submit three variants of foreign trade turnovers for discussion.

In Variant I it is proposed that the greatest possible shift in foreign turnovers be made to the socialist countries, which means a far greater increase in exports to the socialist countries than to the capitalist ones. It is assumed that the volume of exports to the socialist countries within 8 years (1983-1990) should increase by about 65 percent, while those to the capitalist countries should increase by about 50 percent, but because there is no complete substitution between imports from the socialist countries and those from the capitalist countries, this would be accompanied by a relatively slower rate of development for the economy.

Variant II calls for more equal growth of exports to the countries of the two payments areas, with only a somewhat faster rate in turnovers with the capitalist countries (growth of 77 percent) than to the socialist countries (73 percent).

Variant III proposes the acceleration of export growth, with the fastest increase being in exports to the capitalist countries. In constant prices these exports should more than double between 1983 and 1990 in this variant, that is, to about 11 billion dollars, with exports to socialist countries increasing by 78 percent.

Regardless of the variant chosen, there will be great import restrictions. This will require a drastic change in the structure of imports, and above all becoming free of the burdensome grain imports in favor of imports of raw and other materials for industry. This means as soon as possible, by 1985 at the latest, we must balance turnovers with capitalist countries with farm items and raw materials to produce them.

Foreign trade turnovers with agricultural items should decline from 129 billion domestic zlotys in 1981 basically to zero in 1985 (-2 billion zlotys) and will remain at that level in 1990. This will be determined by the decline in grain imports, which in 1985 should not exceed 1.5 million tons and in 1990, 1.0 million tons (mainly high-gluten wheat for the needs of the baking industry), while we maintain essential imports of high-protein fodder (1.5 million tons). In the event the balance of payments results improve, grain imports in 1990 should be increased to a level of 1.5 million tons, that is, to the level anticipated in "The Program for the Development of Agriculture and the Food Economy to the Year 1990."

Scientific-Technical Policy

Four main problems should determine the directions of scientific activity:

- efforts of science and technology on behalf of meeting the most urgent socioeconomic needs,
- the need for the strategic orientation of research and development over the next 10-15 years, so that it can support the structural social and economic transitions,
- assurance of the development of scientific research that will inspire future technology and engineering and pave the way for it; despite the apparent immediate effects, unjustified thriftiness in this area could lead to instances of neglect leading to future damage,
- reorientation of bilateral cooperation programs with socialist countries aimed at fuller coordination of research and development goals, coproduction in research, and the assurance of a real division of labor. An important element of this reorientation should be the association of cooperation programs with the need to solve the most urgent problems in the country.

Implementation Instruments and Mechanisms

In order to resolve the problems facing our country to the year 1990, it is necessary for the society to step up its activity considerably, to develop initiative, and to undertake new, difficult tasks. In this situation, the problem of motivating people and groups to such action takes on key importance. The basic factor from this point of view should be the consistent implementation of the economic reform, which will confirm the credibility of the government's intention to make basic changes in the system of management and economic mechanisms. The implementation of the reform should also be used to create new forms of socialist social relations and to take into account in them the new aspects implied by the development of social life.

In order to gain support for the government's economic policy, it is necessary to increase social participation in forming and implementing the goals of this policy. The plane for such participation should be the expansion of self-government, according to the assumptions of the reform. This means the consistent restoration and creation of self-government groups. This should be accompanied by expanded participation at the national level to create the conditions for real social arbitration in conflicts.

A reformed wage system should be the main plane for incentives. The general direction for rebuilding this system should be a stronger relationship between wages and the effects of work, and hence the consistent execution of the socialist principles of paying according to the amount and quality of work. This is tied in with the need to combat trends toward primitive egalitarianism, which undermines the incentive system. Changes in the principles of remuneration for work should tend to uplift the presently degraded role of the basic wage as a share of the total remuneration for work. On the other hand, with regard to the agricultural

population, the proposal is to introduce a policy which will make any further increase in income solely the result of an increase in market-oriented production. Here the principle of equalizing the level of income of the farm population and the nonagricultural population by the year 1985 is maintained.

The economic instruments contained in the "variants" must be consistent with the spirit of the reform and are subject to constant evolution. Among them are the following:

- bank extension of priority credit to enterprises at a reduced interest rate or with a longer repayment period,
- the granting of budget-backed guarantees for credit which banks extend to the enterprises,
- reduce tax rate on profits,
- the granting of tax relief or the right to subtract certain outlays from taxes; this will be of great significance in agriculture,
- the granting of budget subsidies in a rational sphere,
- the development of differentiated principles for turning depreciation over to the central budget,
- customs fees reductions,
- awarding the right to foreign-exchange allowances to enterprises carrying on export, and so on.

The accomplishment of the goals targeted in the plan will depend on the effectiveness of operation of the group of mechanisms and instruments.

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ADDITIONAL INFORMATION ON 3-YEAR PLAN PUBLISHED

Aims of Plan

Warsaw ZYCIE WARSZAWY in Polish 25 Oct 82 p 7

[Article by Andrzej Wroblewski]

[Text] The document "Concept Variants of the Socioeconomic Plan up to 1985 and Initial Assumptions for 1986-1990" gives rise to several basic reservations.

First of all, it is difficult to accept that the document contains variant proposals. The difference between the three presented variants boils down to a prognosis of chance phenomena. This is particularly true in relation to weather conditions in agriculture and developments in the international situation to which the matter of economic restrictions in regard to Poland is connected. An attempt at making a choice between the three proposed variants, i.e., the variant of unfavorable conditions, the middle variant and the variant of "good luck" would indicate rather unwise thinking. Only the second variant which deals with intermediate conditions can be taken into consideration. On the other hand, the first and third variants should be presented rather in the form of a scenario for the course of action to be taken should the variants of chance stray considerably from the accepted assumptions.

Secondly, the assumption was accepted in the document that the effects of the economic reform constitute external determinants in relation to the socio-economic plan. Hence, such an approach by the planner toward reform should be considered strange, at the very least. Reform is not some sort of an external, independent subject; it is a collection of principles and instruments for the use of the economic center.

Effects will depend mainly on the aim and methods with which the economic center (including the central planner) employs the principles and instruments specified within the framework of the reform. These instruments should be one of the most integral elements of the plan's concept as well as one of the criteria for variations on this concept. However, the approach presented in the document gives the impression that the plan should limit itself solely to

specifying socioeconomic aims while the methods of their implementation should be outside the plan and outside the economy.

Third, we find ourselves in an unusual situation which requires that we depart from the existing ways of treating the plan's aims. The extent of the current crisis dictates that the sole aim of the economy must be to overcome the crisis and to create conditions for stable growth.

It is stated in the document that the major problem of the economic policy of the 1980's is to get the economy out of the current crisis and to help it onto the road of growth. In addition, it is necessary to carry out such changes in the structure of the economy which would exclude the possibility of a return to the situation prior to August 1980. The above statement may be considered as the designation of purpose for the 1980's. However, our social aims extend somewhat further in time. These aims include the following:

- to assure food for the nation while reducing as much as possible our dependence on the importing of grain and food,
- to provide for housing needs to the fullest extent possible under the foreseeable economic circumstances and to develop the infrastructure that is connected to this,
- to protect from the effects of the crisis those classes and groups of people who find themselves in the most difficult financial situation by means of the state's energetic activity aimed at limiting or eliminating poverty areas,
- to strive for a perceptible increase of public satisfaction as a result of improving the organization and functioning of social life.

Without negating the importance of the presented social aims, it should be stated that their arrangement places them in competition with the above-presented principal aim. Moreover, the vagueness of these aims--for what does the statement "to the fullest extent possible under the foreseeable economic circumstances" signify?--causes the attention of discussants and concerned social groups to be concentrated on defining the particular aims while overlooking the problem of overcoming the crisis. The confirmation of this assertion may be found in the course of current discussions in which various groups propose increasing the quota of the food or housing complex as well as that of the social means of subsistence. Consequently, discussion is being centered around the division of the national income while the problem of generating it and its proper structure are pushed into the background.

Under current conditions, the social aims presented in the document limit the field of action in the selection of methods for attaining the main goal. These aims should rather be established as a certain minimum below which we cannot fall. This is, perhaps, an unpopular approach. However, it is the only one if we want to plan and manage the economy rationally.

I repeat: defining the main goal of the economy, i.e. coming out of the crisis and the creation of conditions for stable growth, has a fundamental significance for the entire concept of the socioeconomic plan. Such a precise definition is lacking in the presented document. If on the basis of the text, it can be accepted that breaking the crisis means the attainment of the 1978 level of national income and consumption, then the criteria are lacking for a definition of the "methods of economic growth and structure which exclude the possibility of a return to the situation prior to August 1980" [as published].

In some sense, the model of economic functioning which is supposed to assure stable growth conditions is described in the "Directions of Economic Reform." The implementation of socioeconomic policy which has a common bond with the assumptions of the reform is discussed in the document. However, that which is specifically presented there deviates from that assertion.

Another matter which is extremely important for the implementation of the principal aim is defining the economic growth factors. Hence, contrary to prevailing slogans about labor productivity and management efficiency as growth factors, an argument can be made that from a planner's point of view these are effects and not determinants since labor productivity and growth efficiency depend on many factors whose recognition and activation belong to the task of the planner.

In conjunction with this, it is necessary to single out those factors which limit the economy's growth process. Besides social conditions, these include factors which were discussed earlier as well as the importing of supplies, raw materials and fuel, the existing subsector structure of the economy and the low mobility of the "labor force." If the first two factors are being widely discussed, the last two are treated marginally. The subsector structure of the economy has been assessed in the "Report on the State of the National Economy" as inefficient. However, the proposal to restructure the economy on the basis of this conclusion does not seem to be very reasonable. A change in structure requires time and that which is most important in our situation--extensive funds which we do not have.

That is why the creation of new subsectors, as was attempted in the 1970's, is impossible. This would cause the already existing subsectors to become completely stripped of growth funds which in turn would mean that in the very near future we would have to deal with the direct quantitative [ilosciowym] growth of production which would aggravate problems involving raw material and fuel supplies. With such a variant, it is easy to visualize ourselves in 2-3 years faced with the problem of a large-scale expansion of the raw material base.

The way in which the restructuring of the economy is treated is worthy of attention, especially the development of the food complex where, practically speaking, the problem has been reduced to the simple increasing of the material means [srodki rzeczowe]. However, such a key issue as changing the ways in which the economy functions and is managed was overlooked. It appears

that with today's archaic agrarian structure of farming, not only a country such as Poland but also a more affluent nation would be incapable of providing agriculture with the means of production. Attempts to do this may lead to the maintenance of a low level of land management efficiency which in turn leads to the raising of food prices and insufficient supplies [of food]. This is a separate problem and interesting in that it is readily avoided in all public discussions.

The problem of housing construction requires a different view as well. Experience teaches us that simply increasing the material means for building construction does not solve the problem but does affect budget policy. Therefore, the problem lies not only in the means but also in the method and the plan concept must propose some sort of method.

The employment situation is similar. The infrastructure and social habits alike are causing a waning of the tendency to change one's place and type of work. Social and occupational mobility indicators of recent years have been "set" by a relatively small segment of society. Underestimation of this phenomenon had an effect on the discrepancy between predictions and the actual situation on the job market. In addition, relatively limited changes in the level and structure of employment may be expected in the immediate future in enterprises regardless of the incentive-type solutions. The problem should rather be examined from the point of view of a declining need for increasing employment--this would already be a great accomplishment.

Production Variant Proposed

Warsaw ZYCIE WARSZAWY in Polish 26 Oct 82 p 3

[Article by Andrzej Wroblewski, consultant to the state minister plenipotentiary for economic reform: "I Propose the Variant of Production"]

[Text] The basic task of the 3-year plan should be the activation of growth processes in enterprises. In conjunction with this and aside from increased production, changes must occur in the technological processes, construction [konstrukcjacjach] and organization of production. These changes should also create foundations for the gradual reconstruction of the subsector structure of the economy.

This gives rise to the question: Under what kinds of conditions can such a process occur? First of all, the capacity to modernize enterprises must be assured. At the same time, it is worth noting two problems: the depreciation of fixed assets which was also discussed in the "Report on the State of the National Economy" and the incomplete utilization of production capabilities. The depreciation of assets [...] places the entire economy before the problem of accelerating the process of rebuilding production capacities. On the other hand, the incomplete utilization of production capacities creates the opportunity to take on the modernization of technological processes without limiting the already existing level of production and this is very important.

The problem of planning the level at which production capacities in the economy will be utilized should also be examined within this context. The obsession to fully utilize these capacities not only leads to the halting of modernizing processes but is also one of the stabilizing factors [czynnik utrwalania] for the manufacturer's market. Since, to a certain degree, it follows from the doctrine of planning that the level of production capacities should not exceed the demand, a more rapid growth of demand than of production capabilities results in a constant state of imbalance.

Modernization is also a condition for increased labor productivity. We have come to a point where before improving the "industriousness" of workers, we must first improve its effectiveness and this requires organizational as well as technological changes. The concept of more muscle power will not guarantee conditions for stable growth. Production may be increased in this way for a short period of time but under the threat of repeating the situation prior to 1980. That is why in the distribution of the national income it should be anticipated in advance that enterprises will retain appropriate funds. This is one of the determinants for the distribution of the national income.

By taking into account the extent of the economy's fixed assets and especially the amount of machinery and equipment, it is possible to assess the indispensable level of gross capital expenditures which should be implemented by enterprises. The value of machinery and equipment as well as of transportation means may be assessed at approximately 2,500 billion zlotys according to old prices; in other words, their renovation value [wartosc odtworzeniowa] would come to approximately 7,000 billion zlotys. For this reason, the structure of investment outlays proposed in the draft plan for 1983 as well as in the "Concept Variants of the Socioeconomic Plan up to 1985," which anticipates that enterprise investments will amount to approximately 340-350 billion zlotys, is unacceptable. Moreover, this structure is unrealistic from the point of view of the system of enterprise economics because the gross profit will be 3-4 times greater. The limiting of outlays could mean that the undesirable structure of production would be maintained, that the raw material and import barrier would grow and that it would be impossible to make changes in the subsector structure of the economy.

The issue of overseeing the processes of modernization and of changes in the structure of production is often brought up. A thesis is being formulated which suggests that managing these changes by means of the credit system is the most rational solution. Such a thesis is also contained, though not directly, in the document under discussion. However, it appears that the thesis is wrong. With the present scope of the economy, the amount of subjectivity and the degree of complexity of interrelationships, it is impossible to manage the modernization of enterprises directly from the outside. The credit system can and must maintain a decided influence over the reconstruction of the subsector structure. However, in the case of modernization, it [credit system] may function effectively only on a small scale; for example, in limiting the energy intensiveness of production.

On the other hand, the basic range of decisions must belong to enterprises. The state should exert its influence through the creation of norms, systems of attestation [atestacji] and by introducing tax allowances.

There still remains the problem of "enterprises wanting to grow." In practice, an enterprise will "want to" when this will mean a way for the enterprise to improve its economic situation including that of the work force.

This is where we ought to leave the realm of figures and indexes and pass on to the area of psychology. An improvement in the economic situation is not so much an improvement in relation to the preceding period but an improvement in relation to the environment. Wage increases will become devalued by even as much as several dozen percent in the eyes of work forces if in the neighboring "firm" the increases will be five points higher or will be achieved by way of a simple regulation. For this reason, the problem of understanding "equality" should be solved first and then we can start considering how to motivate growth. Unfortunately, it appears that the concept of "equal stomachs" continues to be in the forefront and not the concept of equal opportunity. This must lead to the leveling of wage differences which come about as a result of differences in work effectiveness. At the same time, effectiveness should be understood as the final economic effect of enterprise activity and not the physical effort exerted.

In order to avoid public frustration, conditions ought to be created for the attainment of large wage increases in those groups of enterprises that show growth. This must entail a change in the structure of the distribution of the national income which will be to the disadvantage of that part of the production sphere which achieves lower results and also to the disadvantage of the nonproduction sector including social services.

All of these considerations will have sense if the economy will be stabilized. Otherwise, the proposed solutions may only unwind the inflationary spiral. In taking into account the already activated mechanisms of wage and service increases as well as the recent price shock, the necessity of high wage increases should be anticipated. In turn, higher wage increases require appropriate price increases. The disparity between the level of production and the degree of demand continues to be so great that there is no real possibility of reaching an equilibrium in the near future other than through increased production. At the same time, it is possible to observe a trend toward stabilizing price levels. This requires a new look at price policy. High price increases are always poorly accepted by society even when they are accompanied by significant wage increases. Thus, in order to curb rising prices which is indispensable for economic stability, the limiting of the income level of the nonproduction sector should be taken into consideration.

The above-presented general assumptions of economic policy for the upcoming years have not exhausted all the important problems. I have selected those elements which must indicate the choices to be made under conditions of coming out of the crisis. Of course, this is only the presentation of a certain course of action. Now, the next step should be to provide parameters for

this course of action and to work out the variants of economic policy. The basic variant should be the so-called production variant which would incorporate all decisions for coming out of the crisis as quickly as possible. This variant would have to contain a basic description of the structure of production and consumption which would create a condition for stable growth. It should also evaluate the economic consequences for the particular areas of social and economic life in the acceptance of the policy of intensive growth.

The second variant should be the variant of preserving the current trends of "equalizing living conditions" under the slogans of "bearing the cost of the crisis equally" with a show of incentive for growth activity.

The third variant should be the variant of protecting the social minimum. In this variant, the point of departure would be the assumption that the state would assure everyone's subsistence at a critical social minimum level. Everything above that level would be the result of individual enterprise activity.

The presentation of such variants in the next phase of work on the 3-year plan would create conditions for making rational choices. The variant currently under discussion in which, for example, differences in the directions of assigning investments (for production, social purposes, etc.) do not have an effect on the level of the national income or consumption, can only lead to the submitting of proposals in regard to improvements of social and housing conditions and to the creation of new social illusions.

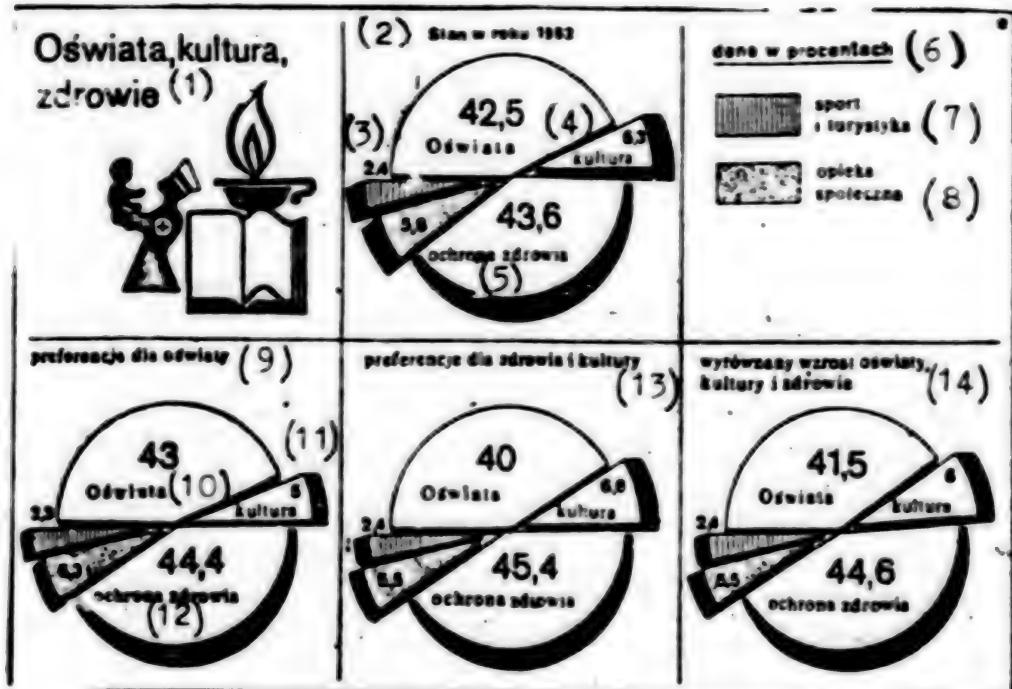
Education, Culture, Health

Warsaw TRYBUNA LUDU in Polish 20 Sep 82 p 3

[Article by A.L.; passages enclosed in slantlines printed in boldface]

[Text] Education, culture, health. It is difficult to decide which of these areas should be given priority during the 1980's in the form of higher financial means. All of them are important and of great social significance. However, meager funds and a small increase in the national income for distribution make it impossible to satisfy every need. What then should we choose?

Before acquainting ourselves with the solution variants proposed in the draft of the National Socioeconomic Plan up to 1985 as well as in the assumptions for 1986-1990, let us take a look at the way the distribution of funds for sociocultural purposes is arranged in the chart below:



Key:

- 1. Education, culture, health
- 2. Distribution of funds in 1982
- 3. Education
- 4. Culture
- 5. Health protection
- 6. Data given in percentages
- 7. Sports and tourism
- 8. Social welfare
- 9. Priority given to education
- 10. Education
- 11. Culture
- 12. Health protection
- 13. Priority given to health and culture
- 14. Equal increases of funds for education, culture and health

What changes can take place during the 1980's and to what degree? To put it somewhat differently: to what extent should these proportions be changed?

Three variants have been proposed in the draft plan for the 1980's.

/The first variant gives priority to education (29 percent increase of funds) at the expense of culture (1 percent increase)./

/The second variant gives priority to health and culture (health--30 percent increase of funds; culture--33 percent increase) at the expense of education (funds increased 20 percent)./

/The third variant assumes a more even increase of outlays for education (24 percent), health (31 percent) and culture (21 percent)./

Now, let us look at the consecutive graphs. They give us an idea of how each of the variants will affect the shape of the general structure of outlays for the particular sociocultural causes.

The editorial staff is waiting for comments, opinions and suggestions from its readers.

Let us give it some thought.

DEVELOPMENT OF MINERAL, RAW-MATERIAL SOURCES OUTLINED

Mineral, Raw-Materials Problems

Warsaw, PRZEGLAD TECHNICZNY in Polish, 26 Sep 82 pp 8-12

Article by Zdzislaw Dembowski

Text In a crisis situation the problem of raw materials acquires particular importance. Both domestic industry and foreign contractors are waiting for raw materials. Coal, copper, sulfur unfortunately constitute the main guarantee of our foreign loans and the main source of the foreign-exchange earnings necessary to meet our current economic needs. Our hopes of breaking out of the impasse in which the Polish economy finds itself are based on raw materials. Our extractive industry continues to be one of the pillars of the national economy. To a large extent, its efficient functioning depends, however, on the effectiveness with which geology can participate in the reproduction of resources depleted through exploitation. For many years Poland's economic development took place under the conviction that the possession of an abundant raw-materials base constituted a sufficient guarantee of unlimited development. In many subsectors of industry this led to an investment policy, mistaken in the long term, based on production technologies which were easier or cheaper to introduce but which were extremely raw-material- or energy-intensive. Such an atmosphere was not conducive to the economical utilization of raw materials and led to the frequently excessive exploitation of deposits and the wastage of minerals. This problem arouses justifiable social concern and demands that effective steps be taken to avoid a further worsening of this negative phenomenon.

Geologists have frequently attempted to introduce rational management of deposits. These have embraced the legal, economic, and technical-organizational spheres. As a result of these actions, a coherent system was created which embraced the cycle, from the surveying and management of deposits, through the phase of their optimal utilization during exploitation, to their exhaustion and the recultivation of the land previously exploited. In practice, however, it turned out that, despite theoretically correct regulations and although there was a certain improvement, the effective protection of deposits and the widespread introduction of rational management of resources had not yet reached a satisfactory level.

In Poland, the management of mineral deposits is regulated by two basic legal documents, namely: the law dealing with geology, and the law on mining. The element which links these two documents is the Resolution of the Council of Ministers No. 94/74, issued in 1974, which establishes the competence of the supervising organs and the obligation of the units that exploit deposits to conserve and rationally manage resources. Supervision of the management of the most important mineral deposits (coal, natural gas, iron ore, salt, and the more important raw materials used in construction) is assigned to the Central Mining Board. The Central Geological Board and the Voivodship State-Administrative Offices supervise the remaining minerals--mainly rock raw materials used in the production of building materials and in road construction.

Out of about 1500 documented deposits which are being exploited in Poland, 380 are subordinate to the Mining Boards; the remaining 1100, together with approximately 1500 so-called "points of exploitation," are supervised by voivodship bodies.

The regulations in force have equipped the supervisory organs to a varying degree with the capacity to enforce these regulations in cases where the principles of rational management of deposits are infringed. Only the mining boards possess real sanctions. In practice, organs concerned with geology can only resort to the tedious path of indirect intervention or administrative action. The primacy of the mining plan and the constantly increasing consumption of raw materials are not conducive to the rational management of deposits. Shortages of technical mining equipment and personnel, together with the inefficient utilization of minerals and, above all, the lack of appropriate economic ratios between costs of extraction and the sale price of raw materials, have had a negative effect on the management of mineral resources, leading to excessive losses of resources and wastage of minerals which have been mined.

Beginning in 1974, the Central Geological Board, within the framework of its competence, took up the problem of rational management of deposits on a broader scale than hitherto. In a relatively short time regulations concerning the specific course of action in relation to conservation of deposits were drawn up and implemented. Although the effects in this area cannot yet be considered satisfactory, certain progress can, nevertheless, be noted, particularly in regulating the management of deposits of rock raw materials whose exploitation had previously not been subject to any substantive or legal supervision. Despite a certain inertia and objective difficulties encountered by units exploiting raw materials, over 330 proposals for the development of deposits were drawn up and approved. This significantly facilitated the current exploitation and the appropriate utilization of resources. Also, in an area of the extractive industry which is sensitive for our economy--coal mining--new regulations established industrial resources for 40 percent of exploited deposits, taking into account the demands for an economic management of deposits. The introduction of regulations governing the economical use of raw materials led to the inclusion, to a greater extent than hitherto, of deposits of 1.0-1.5 meters in thickness among the group of deposits proposed for exploitation. As a result, this brought a considerable improvement--from 42 to 63 percent--in the average percentage utilization of deposits.

The strengthening of the positive effects of the actions so far taken in relation to the appropriate management of resources demands time and consistency in enforcing the principles adopted. The intensification of practical activity and the increase in effectiveness in relation to the conservation of resources ought, above all, to lead to the restoration of correct economic relations in the mining industry. Given the high costs on the world raw-materials market, the limit of profitability in the extraction of minerals has shifted in the direction of poorer deposits—obviously on the condition that the technology of processing advances, so that high standard raw-material concentrates can be profitably obtained from these poorer deposits. Parallel to the process of making production in the extractive industry more economic, in order to expand effective supervision over the management of resources and the implementation of the state's raw-materials policy, a new legal document should be drawn up. This would have the status of a law which would in conformity with the currently changed economic conditions, embrace in a comprehensive manner the problems of resource management, and link this problem more closely with environmental conservation. As far as its detailed provisions are concerned, this document should allow for the establishment of inspection organs whose task would be the effective overseeing of resource management and the extent of resource utilization. These inspection organs should also be equipped with sanctions which would allow the enforcement in practice of such methods of exploitation of deposits and processing of minerals as to minimize the loss of deposit substances. This is a demand which, considering the significance of the problem and society's expectations, should be implemented in the shortest time possible. It should be treated all the more seriously given that the mechanisms which guide the functioning of the economic reform in mining enterprises will not in the least encourage the economical management of deposits. They will be oriented towards maximum efficiency which, in many cases, will conflict with the principle of full utilization of resources—above all, of those with less attractive mining and geological parameters.

There thus emerges the problem of stimulating the mines' economic interest in extracting all resources considered to be of use to industry, and of setting in motion the appropriate economic intensives in order to counteract the exclusion of some resources from exploitation.

To refer to the existing administrative regulations in this area carries little conviction since the effectiveness of these regulations has proved to be very little. It diminishes even further when they clash with economic incentives operating in the opposite direction.

We do not possess a ready-made solution concerning the formation of a mechanism which would create conditions for the fullest possible utilization of resources by the mining plant. This is a task for economists. Nevertheless, it seems that the key to its solution is to be found in taking account of mining profits. The country has a resource base consisting of 3400 documented deposits, nearly 60 different kinds of minerals with total resources in excess of 170 billion tons. Total mineral extraction from approximately 3000 exploited deposits and "points of exploitation" amounts to around 540 million tons of soil minerals and crude oil, and about 6 billion cubic meters of natural gas.

The loss of resources resulting from such a high level of extraction exceeds by several times the above figures. Thanks to intensive geological surveys, these losses have so far been offset by the increase in resources in newly documented deposits, which amount on average to approximately 7 billion tons a year. With the passage of time, the reproduction of the resource base becomes increasingly difficult as a result of the contraction in the number of potential sites of deposits. This means a future rise in financial outlays for each ton extracted and the need to employ increasingly more advanced technology. We must now look for deposits located at greater depths and in more complicated geological conditions. On the whole, there are less rich deposits, with a lower concentration of useful component than those deposits which are currently being exploited. The changes which are being introduced in the management of the national economy resulting from the new status of the enterprise, and the general economic reform which recognizes the criterion of profit as the main motive of activity, together with attempts to establish domestic price ratios for raw materials that are closer to world prices, will certainly play an important role in rationalizing raw-materials policy.

The principle of self-financing in the mining industry will undoubtedly stimulate an increase in extraction. However, only to a lesser extent will it create a stimulus to "invest" in the search for reserve deposits which ensure extraction in a longer time frame. So far, the conservation of raw-material reserves was financed from the budget. Now, with economic justification, it is being suggested that the mining enterprise should participate in financing the reproduction of the raw-materials base, in proportion to the amount which it extracts, sales prices of minerals, and the cost of geological research. The direct consequence of putting production on economic lines is the principle that the price of a raw material should fully reflect the real costs incurred in connection with its production.

Initial calculations have shown that the costs of the whole cycle of geological surveys necessary to recreate the raw-material base amount annually to 1.5-2.0 percent of the value of the minerals obtained, calculated in sales prices. The mining industry should allocate this amount to a fund for geological surveys, receiving in exchange the deposits surveyed and the resources needed for its proper functioning.

Legal, organizational, and economic-financial problems do not, obviously, exhaust the problem of improving the management of resources. The environmental factor also plays a significant role, bearing directly on the mining industry's access to deposits. As a result of mining activity, approximately 47 thousand hectares of land have been taken out of agricultural and forestry use in Poland. In 1980 alone nearly 1000 hectares were taken over for this purpose, while only about 260 hectares were recultivated. Approximately 7 percent of total mineral extraction takes place in strip mines. Over the country there are more than 30 thousand strip mines with an area of more than 0.2 hectares each. Obviously, most of these only function for a short time, but the impact of their exploitation on the environment continues to increase. Land conservation considerations lead, in turn, to the imprisonment of a substantial amount of resources and large numbers of documented deposits in

protected areas. In many cases these blocked resources constitute a substantial proportion of certain raw materials; for example, 25-30 percent of the known deposits of natural aggregate or road metal. In this situation the problem of managing deposits depends on the search for a reasonable compromise between the needs of the economy and the conservation of deposits and land. We are trying to resolve this dilemma, allocating to use those deposits which are located in areas not subject to conservation. It should, however, be realized that there is successively less freedom of decision as a result of the diminishing possibilities, for natural reasons, of discovering new deposits of favorable qualitative and mining parameters and which are conveniently located from the point of view of transport.

A broad field of activity which constituted the key to the utilization of the reserves in our raw-materials base is the extent to which minerals which have been mined are utilized comprehensively, as well as the use of substitutes for some minerals, which can be obtained through the processing or refining of poor domestic raw materials. The technological level of domestic mineral processing falls short of the needs of the economy. While it is estimated that currently only approximately 18 percent of all minerals mined have been utilized without prior processing, this can hardly be considered satisfactory if it is simultaneously estimated that by 1990 at least 90 percent of raw materials should be subject to processing. Alongside quantitative tasks, a specific role in this field should, though, be played by qualitative tasks, consisting of the preparation and introduction of advanced technologies in order to make it possible to broaden the scope of application of many minerals and the production from them of raw materials of standardized quality commensurate with the demands of the world raw-materials market and the needs of modern industry. This chiefly concerns glass-ceramic raw materials, filler, sorbents, mineral dust, and so on, used in the production of building and electronic materials, paper, chemicals used in food processing, cosmetics, and in agriculture and elsewhere.

We possess appropriate mineral deposits, we are familiar with the technology of processing, we have the capacity to construct the equipment needed to undertake this necessary production which is largely of an import-substitute nature. It should be emphasized that in this field also we cannot count on noninvestment increases in production. There are, however, certain possibilities of identifying raw materials whose utilization demands relatively small outlays and simple technology, and which simultaneously bring a relatively quickly-perceived improvement on the raw-materials market. Although their share of total imports of raw materials does not exceed 3.5 percent, this nevertheless burdens our account to the tune of 500 million foreign-exchange zloties. The search for interim solutions which are important from the point of view of overcoming the crisis should not obscure the main problems which are to be found in the optimal utilization of our raw-materials base of basic minerals (coal, ferrous metals, sulfur) which are, after all, decisive for our balance of raw materials and which will be a significant export commodity.

Potential, Recoverable Reserves

Warsaw PRZEGLAD TECHNICZNY in Polish 26 Sep 82 pp 8-12

Texf Hard Coal

Our per capita production of hard coal, and until 1980 also its export, were among the highest in the world. Only Australia was ahead of us.

Geological recoverable reserves of hard coal amount to over 61 billion tons, and nearly half of them are already being mined. Only a small proportion of them have been surveyed into categories A, B, C—no more than 35 percent—and this does not guarantee the appropriate planning and exploitation. More than 70 percent of documented reserves consist of stoker coals, the remainder of coking and special coals. Reserves of the highest quality coking coal constitute less than 13 percent of documented reserves. Reserves are documented essentially to the depth of 1000 meters. However, at the moment already about 5 percent of recoverable reserves are to be found at a level of 1000-1500 meters. These are largely reserves of high quality coking coal.

In areas designated for future exploitation recoverable deposits up to a depth of 1500 meters have been initially estimated at approximately 100 billion tons. Most of these are located at a depth of 1200-1500 meters, and it can be assumed that current mining technology does not ensure their safe and economical exploitation.

As a result of more than 300 years of industrial exploitation of deposits in the Upper and Lower Silesian Basins, high quality coal reserves in the most convenient geological-mining conditions have, to a large extent, already been exploited or are currently being intensively mined.

In mines which are active or which are currently being constructed, more than 50 percent of recoverable reserves are to be found in thin seams with a thickness ranging from 0.7 to 1.5 meters. Only about 15 percent of our entire production is obtained from these enormous reserves. This is related to, among other things, the extremely difficult technical conditions of exploitation. A substantial portion—60 percent—of hard coal mined originates in medium seams (up to 3 meters in thickness). Such a concentration of mining in these seams causes very rapid exhaustion of the deposits in seams which are most convenient from the point of view of working conditions.

At the same time, reserves in thin seams are frequently underpinned and destroyed as a result of the exploitation of neighboring seams in which conditions are more favorable to exploitation. This causes irretrievable losses of reserves and a shortening of the mines' lifespan. From this arises the need to prepare technical conditions during the next few years which will allow an increase in the mining of hard coal from seams with a thickness of no more than 1.5 meters, as well as the preparation of new technologies on an industrial scale in order to utilize them—e.g., the underground gasification of coal. This is all the more urgent and necessary because more than 70 percent of deposits of undeveloped recoverable reserves and areas designated for

future exploitation, including the Lublin Coal Basin, are to be found in seams of less than 1.5 meters thickness.

During the planning of exploitation, it is currently assumed that approximately 65 percent of recoverable reserves will be utilized. During exploitation, after taking account of related conditions, the index of utilization of documented recoverable reserves becomes 40-45 percent and in extreme cases falls to approximately 30 percent. At the current index of utilization of recoverable reserves during exploitation, the number of deposits developed makes it possible to obtain approximately 200 million tons of coal a year from a period of 60 years. However, deposits of stoker coal, which constitutes more than 80 percent of our entire production, will last for only 40 years.

Because of the rapid exhaustion of reserves of stoker coal in seams more than 1.5 meters thick, which will already have a considerable impact on the concentration and the decline in its production by the years 1985-1990, it is necessary to draw up a construction program for new mines producing this kind of coal.

The appropriate utilization of coal of various kinds and types constitutes a separate problem.

Brown Coal

Brown coal is the source of 23 percent of the energy produced by the country's public-utility power industry, and after construction of the Belchatow and Lubstow mines has been completed and they have reached their ultimate output capacity (in 1990) this share will double. This fuel will thus constitute an essential supplement to the basic source of energy—hard coal—although even the attainment of full output will still not ensure that the country's fuel-energy needs will be fully met.

Geological reserves of brown coal to a depth of 300 meters are estimated at roughly 30-35 billion tons, of which 11 billion tons have so far been documented. The remaining reserves have been poorly surveyed and comprehensive geological work is needed to document them into industrial categories. Documented recoverable reserves of undeveloped deposits have not been fully surveyed (70 percent of them have been subject to a preliminary survey).

The recoverable reserves of functioning mines and those which are under construction constitute only about 20 percent of documented reserves, and the index of their utilization during exploitation is high—an average of more than 75 percent. The loss of reserves directly resulting from exploitation does not exceed a few percent.

Because, however, of insufficient reserves of deposits in the region of Kowin and Adamow, it is necessary to take technical steps to make it possible to extract a portion of the deposits which have so far remained untouched.

The full utilization of reserve developed deposits, as well as further investment in brown-coal projects, depends, however, above all on the development of the country's production of mining equipment.

The geological-mining conditions of deposits that are currently being exploited are relatively convenient, although exploitation of the deposits at Turow takes place at a depth of more than 200 meters. On the other hand, the extraction of brown coal in new deposits and in the mine which is under construction at Belchatow will be more difficult than hitherto because of the generally deeper location of the deposits, their complicated construction, and the strong flooding of deposits. Although the calorific value of the coal in most of the deposits is high, nevertheless, because of the large amount of sulfur and alkalines which it contains, its burning will have a negative impact on the natural environment. For this reason it is necessary to work out new technologies for the processing of brown coal, which will increase its energy efficiency and limit environmental pollution.

It is also necessary to consider the possibility of drawing up and implementing a program for the utilization of brown coal, particularly from small deposits, to be used in the heating of small-scale industry and in homes, along with the expansion of existing briquette plants and the construction of new ones, the hardening of brown coal, and so on. Such a program would seem all the more worthy of consideration in that deposits of brown coal are to be found over nearly half the country's area. Its implementation would make it possible to satisfy partially the fuel demands of those regions far from traditional sources of supply.

Copper

Polish copper mining has developed on the basis of rich deposits which have been adequately surveyed. Seventy percent of documented reserves are being mined, i.e., they are located in areas of mines which are either functioning or under construction. The decisive majority of reserve deposits (approximately 80 percent) hitherto undeveloped take the form of ore series, located at depths of more than 1200 meters, currently considered the technical limit for exploitation. Similarly, reserves to be developed in the future are located at depths of over 1200 meters and, in addition, are characterized by poorer mineralization and thinner core series.

The reserve situation in relation to copper ore dictates an economical development of exploited deposits. Losses in industrial deposits during exploitation amount, in the case of ore, to between 20 percent for "free" deposits and 30 percent for deposits extracted from safety pillars. In the case of metal, these losses amount to between 28 percent and 36 percent respectively. We are still losing too much. The varied geological formation of the deposits presents mining with many considerable difficulties in the exploitation of seams of less than 3 meters thickness and those over 8 meters thick. An essential goal of copper mining is the optimal utilization, with the simultaneous guarantee of the appropriate conservation of the land, of reserves in safety pillars whose share of all developed reserves amounts to approximately 25 percent. Alongside difficulties in choosing the most

effective systems for exploiting deposits, the most important problem is the lack of special machinery and equipment adapted to the needs and specificity of this branch of mining. In this area of production there needs to be an improvement in the technology of retrieving valuable elements which appear in the ore alongside copper as: lead, silver, nickel, gold, cobalt, molybdenum, vanadium, rhenium, and selenium. Our efforts must be accompanied by awareness that this branch of mining possesses a base of reserves which, at the current level of extraction (approximately 23 million tons of ore in 1980) and the currently achieved index of utilization of deposits (fluctuating around 60 percent), and taking account of deposits to a depth of 1200 meters, can ensure continuous production for the next 50 years. The development of reserves located below this limiting level can prolong the life span of our mines by a further 15 years.

Zinc and Lead

In the mining of zinc and lead ores, the rational utilization of resources encounters problems similar to those described above in relation to copper ore deposits. Natural factors and the mining conditions in the exploitation of these deposits are, though, even more complicated. Deposits of zinc and lead ore display a nest-like structure with varying degrees of fragmentation, variations on the type of ore (oxide and sulfide), and considerable flooding which reaches several cubic meters of water for each ton of ore mined.

Documented reserves of these ores amount to several hundred million tons, of which approximately 46 percent are to be found in active mining areas. Most of the reserve deposits are concentrated in newly-discovered deposits in the Zawierciaski region which have been subject to a preliminary survey. About 20 percent of the deposits are imprisoned in safety pillars.

The share of sulfur-type ore in the total reserves which have been surveyed amounts to approximately 70 percent, which is advantageous to the extent that losses of metal in the exploitation of this type of ore, are lower because of the greater possibilities for retrieval during the refining process. The general index of resource utilization in the exploitation of zinc-lead ores is 60 percent. Thus, given an annual extraction of 5 million tons of ore (in 1980), documented reserves can ensure extraction for roughly 40 years--on condition that the Zawierciaski deposits are developed. While assessment of unsurveyed areas indicates certain possibilities of increasing resources by several further million tons, these are deposits of lower quality and of worse geological-mining parameters.

Taking into account the demands of long-term raw-materials policy, it is necessary to increase our efforts to improve ways of exploiting reserves located in safety pillars as well as the adaptation of machinery and equipment in order to mine deposits of less than 2 meters thickness, and also to introduce enriching technologies to make possible the better retrieval of other elements contained in the ore, and in particular, silver, cadmium, and thallium. Current trends to increase mechanization of extraction and raising productivity in this branch of mining tend rather towards raising recoverability criteria. The criteria introduced in 1975 raised requirements of the so-called minimal

thickness of deposits from 1.5 to 2.0 meters, which resulted in a decline in recoverable reserves. A further negative phenomenon accompanying increased mechanization is the so-called depletion of deposits which manifests itself in a declining metal content of mined ore.

Sulfur

In Poland more than one million tons of native sulfur have been documented, of which 55 million tons have so far been mined. More than 88 percent of this has been exploited. These uniquely rich deposits of native sulfur, together with the ever-increasing possibilities of mining them, have meant that during the last decade we have found ourselves the world's leading producer and exporter of native sulfur. Forecasts regarding the development of sulfur mining assessed on the basis of the size of the documented resource base have indicated the possibility of a further strengthening of our position in the world.

In 1980 energy difficulties forced us to introduce new criteria which considerably increased the demands made on recoverable deposits in relation to the minimal thickness of the deposit, the sulfur content, and abundance. Because the new criteria eliminated a portion of the deposits of lower content that are situated in more difficult geological-mining conditions, we expected a high retrieval of geological deposits in excess of that already achieved, i.e., approximately 50 percent.

At the same time, according to the most recent estimates, the index of resource utilization has not improved, despite the fact that the richest deposits are involved. If these procedures for exploitation are maintained, only 25 percent of the documented resource base will be utilized and the remainder will be lost. The eventual exploitation of the remaining deposits depends, then, in the case of drilling exploitation, on repeated heating of deposits, the considerably more difficult smelting of congealed sulfur, and above all on the enormous costs arising from the energy-intensiveness of this method of exploitation.

According to initial calculations by the ZKS Chem [expansion unknown], the resources which can be exploited do not permit us to plan the development of sulfur mining and, moreover, create a real threat that in about 30 years Poland may change from being an important exporter of sulfur to being an importer of this raw material.

The documented resource base of native sulfur, together with the very limited possibilities for increasing it further, shows the necessity to undertake effective action in order to ensure the rational management of deposits and the optimal utilization of their resources. There is an urgent need to improve the technology of smelting in order to reevaluate the profitability of constructing new drilling mines, given the currently accepted consumption of energy for one ton of smelted sulfur and given the simultaneous nonutilization of deposits in the Piaseczno and Tarnobrzeg regions, located at a depth which permits strip mining.

Rock Raw Materials

Mining of rock raw materials is a significant branch of the extraction industry because of the number of exploited deposits and the scale of extraction. Among more than 50 types of documented and exploited rock raw materials in Poland, two occupy a dominant position. These are limestone for the building-materials industry (cement, lime) and aggregate. The extraction of these minerals exceeds by 30 percent the total tonnage of all raw materials mined in Poland.

The documented limestone resource base of hard building materials exceeds 16 billion tons, of which 5.8 billion tons are exploited deposits. The extraction of limestone for the cement, lime, iron and steel, chemical, and food industries amounts to more than 55 million tons. The reserve resources for the further development of processing industries constitute 85 percent of undeveloped deposits with resources in the range of 10 billion tons.

These are mainly deposits which have only been subject to a preliminary survey and which need detailed investigation. It should be emphasized that in recent years new extractive and processing technologies have been introduced into the cement-lime industry, which has resulted in smaller losses of deposit substances. The output is utilized in a comprehensive manner, as the minute grains produced in the course of mechanical processing—formerly "waste"—are now used in the production of building aggregate, lime fertilizers, and cement clinker.

Losses during exploitation are small—from 5 to 30 percent in the cement industry and 10-15 percent in the lime industry. In the latter, the slightly higher losses result from the higher requirements concerning the chemical properties and granulation of the raw materials used in the production of lime.

A related, but particularly topical problem because of its import-substitute value, is the inadequate utilization of so-called writing chalk as well as certain varieties of pure limestone for the production of technical chalk. Despite the elaboration of domestic technologies, so far the investment necessary to set in motion the production of different kinds of technical, cosmetic, and artists' chalk on an industrial scale in quantities sufficient to meet domestic demand has not been undertaken.

Unfortunately, because of its high energy-intensiveness, the cement-lime industry must now considerably limit its production, despite the possession of an abundant resource base and extensive production potential.

In the currently dominant construction technologies concrete continues to constitute a basic material. The complementary component to cement in concrete is aggregate, which makes up 70-80 percent of the mass.

Reserves and the location of the aggregate deposits and the raw materials used in the production of artificial aggregate have a fundamental influence on the possibility of developing construction in this country.

The exploitation of natural aggregate deposits leads to extensive devastation of the land. Therefore, in order to observe the demands of environmental protection, the documented general reserves of this raw material, amounting to 6.9 billion tons, have to be reduced by 2.5 billion, i.e., by those deposits whose exploitation cannot be developed. Reserves of undeveloped deposits, forming an eventual reserve for the increase of output, amounts to 2.6 billion tons and are to be found in nearly 500 deposits. Deposits of aggregate are located unevenly over the country. The deposits in the southern and northern regions of the country are of particular economic value because of the high yield and quality. In the southern region alone more than 50 percent (3.8 billion tons) of the country's natural aggregate resources base is concentrated. Most poorly endowed is the central region, in which there are no large deposits of aggregate and where industrial demand must be met by supplies from far-off plants in southern or northern Poland. Research so far does not offer much hope of documenting qualitatively superior deposits of natural aggregate conveniently located in relation to centers of demand. A certain mitigation of the deficit, particularly in the central region, could be achieved by making greater use than hitherto of small deposits with reserves in the region of 30-50 thousand tons, which are unprofitable for key industry but sufficient for local needs.

A base for the production of broken aggregate is provided by reserves of pure rock to be found mainly in south-western, southern, and central Poland, documented at more than 6.6 billion tons.

Reserves of 185 developed deposits amount together to 2.7 billion tons; a further 3.7 billion tons of reserves are to be found in 133 reserve deposits. The possibility of substituting broken for natural aggregate will help considerably to solve the raw-materials problems of the construction industry. The production of both types of aggregate in Poland amounts to approximately 140 million tons, of which 80 percent is natural aggregate and 20 percent broken aggregate. Unfortunately, this production does not fully meet the needs of construction, railway construction, and road building, and a shortage of this raw material is a permanent phenomenon.

It is estimated that, at the current level of extraction and utilisation of reserves, the documented resource base can guarantee the production of natural aggregate for about 35 years and for about 70 years in the case of broken aggregate. It should be noted, though, that these global assessments will only be correct if the problems of mining and transport equipment, refining machinery, energy, and also changes in construction technology are resolved. The share of broken aggregate in the production of aggregate should be increased because, in comparison with natural aggregate, the exploitation of solid rock in order to produce broken aggregate is more favorable from the point of view of environmental protection and the extent to which the deposits are utilized.

From one surface unit (1 m^2) of solid rock an average of 40 tons of aggregate is obtained. On the other hand, only 4 tons of natural aggregate is obtained from the same area. If geological research is maintained at the current level,

we shall be able to make good the loss of resources caused by exploitation only during the next few years. The economical development of reserve deposits currently exploited is thus a necessity, particularly in the country's current situation.

This review of only some of the most important problems has revealed how complex is the notion of rational management of mineral resources and how a variety of activity in different areas of technology, economics, organization, and law are necessary in order for reserves to be utilized in the national economy.

Discovery of Precious Metals Deposits

Warsaw EXPRESS WIERNZORY in Polish 23 Sep 82 pp 1, 2

[Text] The metallurgy ministry alone could save 575,000 dollars if it ceased importing just one element--ilmenite. It could, they say, if only this element were to be found in Poland....

And in Poland, in the coastal Baltic region in the Odra estuary near Slupsk, scientists from Wroclaw Polytechnic's Institute of Inorganic Chemistry have discovered two unusual sandbanks. The sand contains not only ilmenite but also zircon and monazite.

Initial, unavoidably superficial, estimates suggest that the Odra sandbank, which stretches over 450 square kilometers, contains approximately 6 million tons of ilmenite and 820 thousand tons of zircon. This would supply domestic industry with rare-earth metals for decades to come. The metallurgy ministry's demand for ilmenite and zircon amount to several thousand tons a year. This would also open up the possibility of exporting valuable minerals. Have we, then, found a gold vein?

The deputy director of the Department for the Rationalization of Imports at the Ministry of Metallurgy and Engineering Industry, Roman Krzeszowski, is exceptionally cautious in his statements on the subject. Of course, the Slupsk and Odra sandbanks have been researched in previous years, mainly to see if their deposits could be used for construction needs. Are they, though, as rich in rare-earth metals as the Wroclaw researchers claim?

Two institutions which, by virtue of their work, are familiar with the country's natural riches--the Geological Institute and the Central Geological Board--consider the abundance of the deposits to be highly problematic. Nevertheless, the Sopot section of the Institute, which deals with maritime geology, has already made contact with the Wroclaw scientists.

Are there, then, grounds for optimism? Nearly every branch of industry has need of rare-earth metals. They are vital to metallurgy, particularly to the smelting of high grade steel, they are needed in chemistry, electronics, and in ceramics. Nuclear technology makes use of them; the most advanced space technology cannot do without them.

Such rare elements as cerium, erbium, and gadolinium can be retrieved from the monazite sands. Gadolinium costs five times more than gold! Even if, then, the deposits turned out to be smaller than the initial estimates suggest, it seems that the game is worth the candle.

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CURRENT INVESTMENT SITUATION REVIEWED

Warsaw INWESTYCJE I BUDOWNICTWO in Polish No 7-8, Jul-Aug 82 pp 3-5

[Article: "Description of the Investment Situation"]

[Excerpt] The current investment situation in the country is characterized by:

--the low level and a continued decrease in the size of investments in the economy and their share in the national product;

--a very wide front of investments initiated in previous years and subsequently halted without any chance of rapid completion;

--linked with the above, a very high level of freezing outlays for investments that were initiated but not completed and also a high level of committed investments, i.e., the outlays that should be earmarked for the completion of the initiated investments;

--a virtual halt on the initiation of new investments, other than apartment construction and small, quick-return investments in industry and agriculture;

--a considerable value of unutilized machinery and investment equipment, either manufactured in the country or imported;

--a decrease in both the efficiency of the processes and the effectiveness of investment outlays manifested in significantly longer cycles of implementation of investments and in the delays in commissioning the facilities for exploitation, as well as in the lower utilization of the production capacity of the invested fixed means in the economy;

--a growing, urgent need for investments, especially in such areas as the construction of apartments, hospitals, and health facilities; in agriculture, the food sector, the mining industry, the raw materials and chemical industries, and in the area of protecting from depreciation the natural environment, as well as industrial and housing resources that cannot be quickly implemented.

Since 1978, the decrease rate of the general level of the investment outlays is as follows (in percents, up to the last year):

in 1979--8.7 percent
in 1980--12.6 percent
in 1981--26.7 percent
in 1982--about 10 percent (in accord with the principles of the plan).

The investment outlays in the economy that equaled 720 billion zlotys in 1978, dropped down to 470 billion zlotys in 1981 and down to 423 billion zlotys in 1982 (in accord with the principles of the plan).

In 1981 the size of investment outlays decreased to the level achieved in 1973, and the number of apartments commissioned for the exploitation, was equal to the 1967 level (the 1964 level per capita).

During the period from 1971 to 1981, the basic production of the construction-assembly enterprises decreased to 32 percent, while the employment in the enterprises decreased only 10 percent and the labor productivity--only 24 percent.

The excessively broad investment front is manifested in the fact that at the beginning of 1981 the investments of the cost-estimate value equaling 2,090 billion zlotys were in the process of implementation.

This value was almost twice as high as the 1975 value. The growth of the generated national income equaled only 47 percent at that time. There was also a significant increase in frozen outlays in the investments that were not completed. At the beginning of 1981 those investments equaled about 770 billion zlotys. The commitment of investments equaled 1,292 billion zlotys. Considering the existing (at the time) investment and implementation capacities of the economy, the completion of the initiated investments would take over 5 years.

In this situation, the central authority undertook action to limit the size of investments and of the investment front. At the end of 1980 and in 1981, the implementation of about 1,500 investments equaling 430 billion zlotys of the cost-estimate value was halted. This decision met with a strong resistance from the economic administration, the regional authorities, and the enterprises and their work forces. However, the economic situation further deteriorated and those numbers proved insufficient. That is why, since 1 September 1981, there was a ban on undertaking the investment tasks pertaining to construction, and in the fourth quarter of 1981, a review of continuing investments was again conducted. As a result, an additional list was compiled, pertaining to the investments halted in 1982. The cost-estimate value of these investments equaled 250 billion zlotys. However, according to the evaluation conducted by the Council of Ministers' Planning Commission, the current limitations are insufficient. Up to now about one third of all the unfinished investments has been halted, while one half of the investments should have been halted (this is when not counting the cost-estimate value).

In 1981 a further increase in freezing investments took place. It equaled about 80 billion zlotys (10 percent), as compared with 1980. At the same time, as a result of significant limitations on the initiation of new investments, the investment commitment fell from 1,292 to about 1.2 trillion zlotys (including about 900 billion zlotys for the investments that were in the process of active implementation). This is about four times as much as the value of the outlays for the investment construction adopted for the 1982 plan.

The structure of the undertaken investments is also unfavorable. Most of them are characterized by high capital-intensiveness indicators and long implementation cycles and time lapses before the return on outlays can be expected. On the other hand, the share of the investments designed to lower the consumption of raw materials and energy used in production is very low, as is the share of investments needed to improve the market production and increase exports.

The currently halted investments are divided into three groups:

--the investments that are planned to be reactivated in the near future without any major changes in their content,

--the investments that will be used for different objectives,

--the investments that will not be implemented.

So far it has been established that a part of the halted investments, equaling about 130 billion zlotys, will not be continued. The value of the temporarily halted investments that will be reactivated depending on the financing capacity of enterprises and their ability to obtain credits, equals about 210 billion zlotys. The value of the investments projected for the implementation after the change in the objectives equals about 37 billion zlotys. The decisions concerning the appropriation and implementation of the halted investments for new objectives will be made by the interested enterprises based on mutual agreements, including bidding, that should be reached by the end of this year.

The fully halted investments will be under the control of the regional state administration bodies (if the investor does not take action to utilize them) that will implement the investments according to their needs and the needs of both small industry and handicrafts.

A considerable drop in the investment outlays, from 720 billion zlotys in 1978 to 470 billion zlotys in 1981 and between 423 and 430 billion zlotys in 1982, resulted in strict limitations on investments in both the material production and the public consumption spheres, including apartment construction.

The current investment situation in the country is a result of:

--the economic policy (including the investment policy) conducted in previous years, and especially in the first half of the seventies;

--an excessively centralized and ineffective system of managing the economy, including the investment system of the previous years that did not curb the tendency to excessive investments and deconcentration of the investment front;

--very difficult current economic situation in the country caused by the deep crisis that has led to the limitations on the investment outlays and to deranged investment processes;

--the purposeful action of the central economic authority designed to limit the size of investments and the investment front in order to improve the market situation and come out of the crisis.

We cannot yet assess the impact of the economic reform on the investment situation in the country, since, in this area, the reform is just being implemented. Furthermore, its results can only be manifested in the future in view of the particular characteristics of the investment process.

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